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16/28, C12Q 1/68, G01N 33/68, A61K 31/7088, 38/17,
39/395, 48/00

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60/184,606	24 February 2000 (24.02.2000)	US
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HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
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*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: HUMAN G PROTEIN-COUPLED RECEPTORS

(57) Abstract: The present invention provides a gene encoding a G protein-coupled receptor termed nGPCR-x; constructs and re-combinant host cells incorporating the genes; the nGPCR-x polypeptides encoded by the gene; antibodies to the nGPCR-x polypep-tides; and methods of making and using all of the foregoing.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/05989

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/12 C12N1/19 C12N1/21 C12N5/10 C12N15/63
C12N15/86 C12N15/11 C07K14/705 C07K16/28 C12Q1/68
G01N33/68 A61K31/7088 A61K38/17 A61K39/395 A61K48/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C07K C12Q G01N A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EMBL, SEQUENCE SEARCH, EPO-Internal, WPI Data, PAJ, BIOSIS, MEDLINE, CHEM ABS Dat

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE EMBL [Online] accession: AC022042, 26 January 2000 (2000-01-26) BIRREN B ET AL: "Homo sapiens clone RP11-6L15, WORKING DRAFT SEQUENCE, 18 unordered pieces." XP002180041	1,3-22, 27,30, 32-34
X	DATABASE EMBL [Online] accession: AQ070364, 5 August 1998 (1998-08-05) MAHAIRAS G G ET AL: "HS 3035 B1 C08 MF CIT Approved Human Genomic Sperm Library D Homo sapiens genomic clone Plate=3035 Col=15 Row=F, genomic survey sequence." XP002180042	1,3,5-7, 9-22,27, 30,32-34

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

12 October 2001

Date of mailing of the international search report

16. 01. 02

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International Application No

PC1, US 01/05989

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E	<p>WO 01 62797 A (PARODI LUIS A ;LIND PETER (SE); UPJOHN CO (US); VOGELI GABRIEL (US) 30 August 2001 (2001-08-30)</p> <p>(L: Priority) claims 1-141; examples 1-15 SEQ ID NO: 23; SEQ ID NO: 83</p>	<p>1,3,5-7, 9-30, 32-40, 42-48, 50-71, 74-78,80</p>
A	<p>SAKURAI T ET AL: "Orexins and orexin receptors: A family of hypothalamic neuropeptides and G Protein-coupled receptors that regulate feeding behaviour" CELL, CELL PRESS, CAMBRIDGE, NA, US, vol. 92, 20 February 1998 (1998-02-20), pages 573-585, XP002105412 ISSN: 0092-8674 cited in the application</p>	
A	<p>HERZOG H ET AL: "CLONED HUMAN NEUROPEPTIDE Y RECEPTOR COUPLES TO TWO DIFFERENT SECOND MESSENGER SYSTEMS" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES, vol. 89, no. 13, 1992, pages 5794-5798, XP002180040 1992 ISSN: 0027-8424</p>	
A	<p>WO 99 55732 A (AHMAD SULTAN ;CAO JACK (CA); DONNELL DAJAN O (CA); WALKER PHILIPPE) 4 November 1999 (1999-11-04)</p>	

INTERNATIONAL SEARCH REPORT

I: International application No.
PCT/US 01/05989

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claim 39 is directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☒ Claims Nos.: in part: 44,47,52,75
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Claims 1-81, partially, as far as is applicable.

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: in part: 44,47,52,75

Claims 44, 47 and 52 refer to a compound identified by the method of claims 40, 45 and 48 respectively, without giving a true technical characterization. The claims cover all compounds having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such compounds, namely: antibodies which bind to an epitope on a polypeptide of claim 30 and antisense oligonucleotides. In consequence, the scope of said claims is ambiguous and vague, and their subject-matter is not sufficiently disclosed and supported (Art. 5 and 6 PCT). An attempt is made to define the compound by reference to a result to be achieved.

This lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to: antibodies which bind to an epitope on a polypeptide of claim 30 and antisense oligonucleotides.

The above comment also applies for a binding partner of nGPCR-x as referred to in claim 75.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: Invention 1: claims: in part: 1-81; all as far as applicable

G protein-coupled receptor (nGPCR-x) polynucleotide and polypeptide relating to SEQ ID NOs 1 and 111, and fragments and variants thereof. Expression vector and host cell comprising such a polynucleotide. Antisense oligonucleotide directed to a region of such a polynucleotide. Method of producing such a polypeptide. Antibody which binds to an epitope on such a polypeptide. Composition comprising such a polynucleotide, such an expression vector, such a polypeptide or such an antibody. Method of inducing an immune response by using such a polypeptide. Method for identifying a compound which binds such a polypeptide or such a polynucleotide. Method for identifying a compound which modulates the activity of such a polypeptide. Method for identifying an animal homolog of such a polynucleotide or polypeptide. Method of screening to diagnose a disorder affecting the brain or genetic predisposition thereof. Method of screening for a nGPCR-x hereditary mental disorder genotype. Kit for carrying out the aforementioned screening. Method of identifying a nGPCR-x allelic variant that correlates with a mental disorder. Method to identify compounds useful for the treatment of a mental disorder. Method for identifying a compound useful as a modulator of binding between nGPCR-x and a binding partner of nGPCR-x. Method of purifying a G protein using such a polypeptide.

2. Claims: Inventions 2-110: claims: in part: 1-81; all as far as applicable

As invention 1, but limited to subject-matter relating to SEQ ID NOs 2-110 and 112-220, wherein:
 invention 2 is limited to SEQ ID NOs 2 and 112,
 invention 3 is limited to SEQ ID NOs 3 and 113,
 ...
 invention 110 is limited to SEQ ID NOs 110 and 220.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/05989

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0162797	A	30-08-2001	AU 4165801 A	03-09-2001
			AU 5787501 A	09-07-2001
			WO 0148015 A2	05-07-2001
			WO 0162797 A2	30-08-2001
			AU 4165501 A	03-09-2001

WO 9955732	A	04-11-1999	AU 4298099 A	16-11-1999
			EP 1071714 A1	31-01-2001
			WO 9955732 A1	04-11-1999

SEQUENCE LISTING

<110> Pharmacia & Upjohn Company
Vogeli, Gabriel
Wood, Linda S.
Parodi, Luis
Lind, Peter

<120> Novel G Protein-Coupled Receptors

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 tcttatttga gcctagtgtg atgagaaggc agatgtgtta agatgtacat ttcttatgtc 540
 ttttttagct tttttttttc aataagaatg tagtatttga ttgtaggaat aaggcttcaa 600
 taatcaagtt tgcttgtatg cttaatgaga gcatgtgatg cct 643

<210> 10
 <211> 542
 <212> DNA
 <213> Homo sapiens

<400> 10
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 gtaaaccaat ctgtgcagtg gcagcagagt ggctcgggtg tgagggtgctg gggatgtgac 120
 tgagacacct cccaccccca ccaccactga cagagacaca cgtggacaca gcagataacc 180
 tggcgctttc ataggtggtg gagcccagca ccagccctgg aaggaggagc agccatccca 240
 gactggggga gggcgtgccc aggtcatatg attcaggagc tgatccctt ccagggtggag 300
 gggcaggtga gttgggggtg tgggtgagtgc aatgggtggg aggcccgagg agggtaaggt 360
 ggccagagca aagaggggccc ccagaggctg cagggtggaat ggtgaatgtc ctgatttctg 420
 ctgtgctcag cacacagcgg tgttgagaac agagacagag cccaagaata gaggcacacg 480
 gggaagtaga caacatcgac actgccacag gggcaggcgg cccatctggt gttggccctg 540
 tg 542

<210> 11
 <211> 735
 <212> DNA
 <213> Homo sapiens

<400> 11
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gtaatcagtt ctacagtga acaaaggaag aaaacctctg ctgttataaa ccaaaactgg 120
tgttggaatt ggaatgagct tggggaagca caggcacctc tgaattatat taagatatatt 180
caaagtcttt cacttacctg tccaactca ttacagtcac gatggcacta caggcaaatt 240
ggttacaagt atccagggat gtgatgatgg tgcagagagg cccccaaac accactctc 300
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cagccagggt gcagatatag atgtcaggga ctgttttttt cctggatctg aaagagatag 420
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aatttttaat tgacataatg catttttaaat gttaaaggaa aacctataca gatgcataga 540
ggaaatgcct agtcttggtg gtatttaagc attttgaact atttatttga taacttactg 600
gggggggggt taaaaatatg tccacaaaat atttgatatt cctttcagta ggtggagcct 660
aattccctct gagtgtctgac cttattaact tgcttctaac atgagaatat ggcagaagtg 720
cagtgtgtga ctttg 735

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<210> 12
<211> 712
<212> DNA
<213> Homo sapiens

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<400> 12
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attgtcatca gcatcttcag ggtctccttc ttctcccat gctgccagat ataggtgtgg 180
atgctgatgt catcaacagc attatggatc cacagctttt tggccacatg accataaaca 240
accactagtg ccattaatgg caagatgagg aagagcaaaa acaattctca ggtcaaggta 300
ttccctgaa gattttgaag tatacgggaa actgggtagg cagacagttt cttcagctat 360
gtttctaggt tataagacag acagaaagag aaacatcagc tttgtctttt ccctgagacc 420
tacagccagc tattttatgg aagtttggcc gaaggaagat acatatattac tgtttgtgtc 480
tgcattaagc ttaaaatcta gagttaaaaa tccgggagac tttgggttca cctattccag 540
acctctcatg tgatatataa ggaaattatg gccccaaat gtgaagactt atttctaata 600
atcaaagct atgagagtta ttggaaaccg ttatggtaaa tccaagtaa aagaaattta 660
ttttataacc tatatttgga aatgtactat tccagcccct actctgtaag tt 712

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<210> 13
<211> 621

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<212> DNA

<213> Homo sapiens

<400> 13

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aaaccgaatt aataaaagcg tgattatcga caccacatct ccatttagca acccaaaagt    120
tcttctctgtt cccaaatctg aaaaaaaaaa aattcgtaaa aatgccttac gatggatgac    180
tacagcagac gggctgttga gggctgcctc agctcttcag cccagaccag tgacagagct    240
accaacactg cttcacctcc tgcagaggta gaggtacagg caatgagagg aggggggtcag    300
ggatattttt tagccctttc tcatcctacc ctcatgccag tcccagcttt atctaccctt    360
gagtcataatt aagccattca aggatgagtg gatgaagttt ttaatcagga aaaaatactt    420
ccatgcccccc caatttgaga gtaagaaata gaaaatgagg ctattgtggg tgtcatttct    480
aatctctgga cctcagcctg taccctgggg taagtggag tggaaaaaaa ctacaagaaa    540
acagaaagga gtggtgggga tttgtaaggc ttggatgaga tagtatatat taaaggggaa    600
aacttaatta ctttaccctt a                                     621

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<210> 14

<211> 586

<212> DNA

<213> Homo sapiens

<400> 14

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ctaaaaggta ttacagtttt tattttgctt tcaagatatt taagtgttta tttttgttta    180
agccaattaa ttacagcctt ttacataaaa cattaccac aatacatata tagctacaca    240
gaaagacaga agaagattac tgcagtaatt gcaagatttt ttatttgtca gtttttaagt    300
ttcttaattg gattactggc tttaggggtg agcccttggg aaagcagagc caggaaagga    360
gtctctggtg cctcctgttt ttcccaagga gctcaggctc taagagcttc aatatctgct    420
tttaattaaa ctgattttta accatagcac tctttaataa aagttctttt agaatttctt    480
atgccaaaca gccaatattt ctgggttttg aactttatca aaggtaacct cccaggtgct    540
tagagaagga aaatttaaga cagtccaagg aggagaagag agtaga                    586

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<210> 15

<211> 542

<212> DNA

<213> Homo sapiens

<400> 15
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cattgataca aggatttagt gagcacctag aataagaccc agcacaaagg tagcactcaa 180
tgaatatttc aggatagatg aggagataga tggacagatg gatggaagga ggggaaggag 240
aacagaaagc aaatatgaat aaatgaatga ccacaaccca taaaagactg tatagaatga 300
aacagacatt ctggcctgcc agtacttttg aaacctctta aattttaaaa ctcacaaatg 360
catactgcac aaatgaccca ttcagggttct gtgagcctga gctctcttga atacttgact 420
gtcttatgac aagtaagtgt agatgaagct ggccctcctc ttgaatgcc tgaggctcat 480
ctaccacat ttatacttgg ttttgcctt caaatccatt caggtaagcc ctataatgaa 540
at 542

<210> 16
<211> 275
<212> DNA
<213> Homo sapiens

<400> 16
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catcgtttgt gggatgatga tccccatttt atgtaatat ttccaaggat agaaaagtag 120
ggaataattc tgcagctcat tgtgtggctc ataactcaaa ggttactaca acctttatct 180
ccacaccaga caaggacagt aaaggaaaac aaaacaacca catgtcatgg aaatacacat 240
ttatacactt acattatctt taaaaattta gcaag 275

<210> 17
<211> 621
<212> DNA
<213> Homo sapiens

<400> 17
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attatattta tatttaacat ttttcatggt atttcagga gtggtttgga tcttttgttt 120
catccagcta ctgcaaaacc tttgtcatgg caacattcaa agattattca ggcatcatg 180
agtcagggcg agcacagaca agccctcagg atatattcag acaatgaagc caacagtgtc 240
cagtggtagc gatgttatcc ttcacctcac tgttttgctt ttaataggt aagtacatct 300
tttgaaacta taaagtcttt atcgatatctg ttaataaaat ggaattgatg agatagacag 360
tggcaatata caattggccg ttaagtcagt aaagtcagtc ctttgtatta gtgggttctg 420

catcaaattc agattgaaaa tacagtgttc atgggatgta aaacctgcat atatggaagg 480
tcagcttttc atatacatgg gctctgcagg accaactttg aaatttgagt atgtgtggat 540
tttggtatcc atggggatcc tggaaccagt cccccaaggg atactggagg gacaactgta 600
taatatttta cttctgttgc a 621

<210> 18
<211> 546
<212> DNA
<213> Homo sapiens

<400> 18
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gtagtagaaa gatgttggaa ggagagcatt cctaacatag gaaatagcat ggtcaaaagt 180
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gcatacagta tccatgtgtt tataagcaag agatgaggac ttagtgaaaag atagatactg 300
aaaaagtttg acctatatac tggacagctt tggatatcag gctgaagagt tgtgttttac 360
tgggtgtgcc tgtgtgtttt taatgattga atttggtcat agaaaacaga tggcaaaggc 420
aggatgaaag aggaagaact gaaagtcaag acaatgaatt aggaaactac tacaataatg 480
acaggcaggc cgaggcaaag cagtggctgt gctctaatat aaggaaaaaa gtaagagtga 540
tagtet 546

<210> 19
<211> 656
<212> DNA
<213> Homo sapiens

<400> 19
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tctttgagta taaaaatttt ctggactatg tactgtttca tcttatcaaa tccctcagac 120
caaatttatt tagatacata tgttgcatth accacctaatt ttctcttaaa ctttgctgtc 180
tacagaagtt attagcaggc acatctgtgt acaatatact gtaaagtctt acattgacta 240
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tctattgtag acaacacaga actttatcaa aataatgctt actcattagc cctgtaaagg 360
cctcccaactg aagttatctt tatttctgaa tacagtataa gatctttaag acctatggac 420
aaaataagag atctactata tagctcacia aattgtaaaa tttatatgta tttttttat 480
acctttatata atttacatgt cttttggaag atactgtgaa cactgataat tttaaaggagg 540

cctcatttag tttcattaat gaaaatgata tgcataagta ctgcacactt tcctctttac 600
 atgctaaaac ttgaataatg acaaaaatat gctgtacact aagccagaca taattt 656

<210> 20
 <211> 689
 <212> DNA
 <213> Homo sapiens

<400> 20
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 attactcaca aacctggcta accacatgca aaggaaaggg ccagggccca gctcaggatg 120
 ctcatcacag cagaggtgtg ctttgggcgg tggcagcacc aggtgggaca gaggacacac 180
 agaaagctct caatattcat ggccaccagg agacagagac tctctgtgtc agagaaatag 240
 gacacaggct ccagaaacat ggccacctgc aatgtcacct ggtgatacag catgaggatt 300
 ttctccaaca ggatcacagt tacacaggag aggttgacca tatcagcagc ggccaggtta 360
 aggacatagg tcacgtaggg gctgctcctg acctggaagc agaaaagcca gcagaccaca 420
 ccattgcccc ccagcccaca gaaggccacc agcactgtca ggatgaaaac cacctgtttg 480
 cccaccaacc actgcctcc cgtatgactc atgttcaact gtcttggggg ctctgtcctg 540
 ttgtcccaat ccagcttccc agagaacact gagagaaact gggccatggg gggctgcctt 600
 ggctgcctgg gcacaccctg caaagacaaa ggttggtaac ttaccaggcc taggaaggag 660
 agtcagggtt gccttctgac ctgctgggc 689

<210> 21
 <211> 596
 <212> DNA
 <213> Homo sapiens

<400> 21
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 tcccaggag aagggaatat gttttcacac tgactgctgg gcagcctggg acatagctct 120
 agaacctact gctgtgtccc aagtttgcac atcttggaag gagtgcacac agcagggaga 180
 ggggccaat agcaagaggt acagaagaag gaaaggagaa cagagagaag atcatctggg 240
 gtcgaggaaa aggaaaagtg tatagcttat aagctttatt ttcccataa aatcttgcct 300
 gattgagcac ataaacatgc aggataccca gtgaaatctg aatttcagat taacaacaca 360
 tatggttttc aggataagta tgccccaggc aatatctgag acatacttag actcaagaaa 420
 aaaaaaatca gtgtctatcc agaattcaag tgtaactggg tgttctgtat tttataggca 480

atcctatccc cacatcttgc cccccgggct ataatggaaa cctcctaaagg ctgagactgt 540
 ttctgccatg tccttctctgc atttccatgt gccactttgc tctgtaatgt agcaca 596

<210> 22
 <211> 514
 <212> DNA
 <213> Homo sapiens

<400> 22
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 taaaggacag gcagctttcc atttaagggt atggataata tccccctgtg aatgaaaatg 180
 tattcctgca tacagatttg taggatgggtg ttactcagt atcatacaaa gcacttgtgc 240
 aatgtgggtc aataaacatg tgcagaacac ttagcttgac aggttttatg taaatccaaa 300
 aagaaacact ggatgttctt atttcactta aaggaaatta aagcaactgt tttatatgcc 360
 caaaacttgt gtgtaattga tagactcaca atacaaatat ttccacttgg aatcaatgta 420
 aaaattatgc aaaattgcaa taaaaacttt aaatgaatgc tacttggctt agtttacctt 480
 aggctagtgc tttaagttta attctgcact aact 514

<210> 23
 <211> 487
 <212> DNA
 <213> Homo sapiens

<400> 23
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 attagtaact ataatgccag atggatattg aatgtttgct attctttcac cattctattt 180
 tctttatata tgaatatttt gattcagcat aaatttttca catttataac atggccgaga 240
 aaatagtttg tattaataac atagctgggtg cagattttga tttataataa aacatacata 300
 atattttaac caaattatta caataagttt tctatcaagt ttttatataa ggataattac 360
 taattatcaa tcaaatatag taaatgacaa taaatagaaa aaagttataa agtagctcac 420
 tttctgtgtt ttctttttgt ttttgttttg ctttgttttg ttttttgaga cggagttttg 480
 ctcttgt 487

<210> 24
 <211> 527
 <212> DNA
 <213> Homo sapiens

<400> 24
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 aagtctaaag gaaaatcaag gcgtcagcag atggaagccc tagatagtct agggaggaat 120
 tcttcatttt ttctttgctt ctggtggctc ccagcaatct tggattcct tggttttag 180
 ctgcatcact ccaatttttg ccttcactct tccatgaact tatttcctgt gtgtgtctct 240
 gcattctctc tctttttatg gggtgccagt tattagattt aaggccact ctaaccag 300
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 ctgaggttct tggtagacat acattttggg gggatactat tcaactcatt acaccacaac 420
 tccccaaact agagagatag gcaaatacag agaatcacag gttacaggga gcagaagcct 480
 ctaaagtcaa tacctgatag aaacacttaa acaataattg acacatt 527

<210> 25
 <211> 695
 <212> DNA
 <213> Homo sapiens

<400> 25
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 gaaaaaataa cgtaagtagg tgccaaaatg tcattttaaa ctcactctgg taaaaaaaaa 120
 aaaagattac aagattagaa atagactttc ttaccccaat gatgagcatg taatcatata 180
 ttcaattaaa atattttattg agcatacatc cattttcctt gctagtataaa attaggagca 240
 ttcacattaa aatcagagat aggttaagga tgtctgtctat tcagagtaat tactattgga 300
 aaggaggagg caatattata attattttcta tatggtaga ttatatcact agaaaacgat 360
 gagaatcaac tcaaattact cagaatttat aaaagcgcaa cgaaattacc agatagaggt 420
 aaatataaaa aaaccataa cttttctgta tattgataag aatttttagag ataaaaagga 480
 acagattcca ttctttgtca tcactcatc accacagcaa aatgcaatta aatacctatg 540
 atgaatcttt acaaggaatg cagagaattt atatggaaaa taacaaaact tcaactggcag 600
 atgtaagcta tttgaataaa cggtaataaa tgctatgttc ttagactgaa tgggtttgtt 660
 gctgttttga gatggagtct tgctctgtca tccag 695

<210> 26
 <211> 640
 <212> DNA
 <213> Homo sapiens

<400> 26
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ccgcctctcc caatattccc tgagcacacc tggccccac aggactcagc acccgtgtag 180
tactctgtct ttcattgtata atgttctcct ctgttttctt tgcttgggaa actcctaaac 240
atctctcagg acagagttct aatatctcta agaatgcttt ctctagcaac tctcaatgtc 300
cttagagcac ttggttcata cttatgtgaa ataacttccc ttacattaca catatttatg 360
gatccatttt ttctcctaatt ctgttggctg gacaagggca ggcactacat acatcttctt 420
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gcttcttggg atctcattgc ccaactagtg agcatagtag ctgagaggta gtttttcaac 600
cctggccctc tcccttcaat aaatatttct tgagtgaacc 640

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<210> 27
<211> 740
<212> DNA
<213> Homo sapiens

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<400> 27
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aatagactaa gcaggggaga gacataacag ttctttatgt gggggaagga gagaaagaga 180
aaaacagagc ggggaataag acagaggaca aaaatgatac atacagaagg gattaatgta 240
atagttctct ttttctctgc attgaggtag gacacagaat tacttaggcc ctacggtttc 300
acaggaccat agagaaagca tatcatccaa tgaatgaatc cattaacagt ggaagttgta 360
cagatctgta gcaaaaatga tggttaacaag actatttagcc gagaaaatag gtgcaaccca 420
tttaagcgtg tatgtgtgta tttatatata taaatatata taaatatatt catatatata 480
aatatatatt tatataaata ttttatata aatatatttt tatataaata ttttatata 540
aatatattta tataaatata ttttatattt tatatacata tttatatata tatataaaaa 600
tatattttata taaatattta tataaatata taaaaatata tttatatata tatattttata 660
taaatacata tttattttat ataaatattt gtatataaat atatataaat atttatatat 720
ttatatataa atatgtatat 740

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<210> 28
<211> 646
<212> DNA
<213> Homo sapiens

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<400> 28
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 gagcccagcc tgtttaagaa actgaaataa ggccaatgcg gctgcagctc aatgaacatg 120
 gagaagaatg tcctgaaatg aagttggcca gatagggcag cagtgcagatc acgcaggatc 180
 ccgaagggtta tagaaagaat ttgggattgt accataagtg caatgggaaa caaatgaatt 240
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 gaagtgaaat tgacacaact tgagttttat agtaagtttg aatttagctt ctatttccaa 480
 attcctcaaa gaggttaata cttaaaatcc tgagctaaag ttaacctagg caggtctctt 540
 cataaaagct caagagctaa ctgactatga tgaaatatcg ttccacaccc actaggatac 600
 ttatatccaa aatatagtaa caatagttag tgtgggtgtg gagaaa 646

<210> 29
 <211> 398
 <212> DNA
 <213> Homo sapiens

<400> 29
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 catcaggggac ctaaggaaaa aatcctcccc accctgggtg ctcttgtctt agttccccac 120
 atggtccttc cttgtgcctt caaagtgcct tcattggccc tgaggaggga tggcatcctg 180
 gccctgagct tctgtcacct gtgcatggaa acccaagtcc tcacatgcct tggcagggtg 240
 tcccctggga ggcttgggtc cagtctctgt ctgggtgact cgggcacctg gctggcagct 300
 acccaagcac actggccttc tggctctcat tccaatccc cttcccagggt cccagctacc 360
 catgctcatt caagcagcct cccattttgc attgtctt 398

<210> 30
 <211> 626
 <212> DNA
 <213> Homo sapiens

<400> 30
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 atattcatgg cattaaacaa agaacaatgg agtgcccaag tgagtttttt ggtctgtttg 180
 ccaaagtgat cacttttgtt tctaaacatc ttctctctac aaagccttct tcctctaagt 240

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tctttgatca gaatgccctg tacctgacac agtactaccc agataggctg acatgcctac      300
tgtgtgcctt tttcctccct agattgagag cttccattta tggataataa ttgttagctaa      360
tatttggttga agattctcct atctgccata gatgctttac atggattatt tcattaactc      420
actaaacaat cttttaaaga ggtgctactg tgtccagaat tagttccttc tgggtgggttc      480
ttggtctcgc tgacttcaag aatgaagccg tggaccctcg cagtgagtgt tacagttctt      540
aaagatgggtg_tgtctggagt ttgttccttc agatgttcag atgggtctgg agtttcttcc      600
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<210> 31
<211> 547
<212> DNA
<213> Homo sapiens

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<400> 31
tatgcacatg tgtctatcac acttttgtga gtgtttaagt agaattcatt cacatgcata      60
cacactttca ttgtaccatt ctacgtctaa caaaaaaatg ttgcattcaa ggttacaagt      120
aattgaacgt aatagttggt ctgaaattgt gctcaaaagc atatagcata agagaaagaa      180
gccagtcaca aaaggccaca tattgtataa ttccatgtat atgaaatgtc cagaattgat      240
aacttcacag tgttgaaaag tagattaatg gttgcctagg gctggggggc agtgggagga      300
gtgactgcta atgagtgtgt gtgtcttttt ggggtgatgg ctgcacaact ctctacatat      360
actaaaaacc atcaaaatgt aaaacaaaac aagcaaaca actacattgc ttgcaaaat      420
caatttctga atcttcgctg aaccctccca tcaccttctc taaggggagt ttgtcccttc      480
cacaggacag cactgccttc aaggccttac caggggtggt ctcccatgcc ctcatactgc      540
tggggct                                           547

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<210> 32
<211> 568
<212> DNA
<213> Homo sapiens

```

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<400> 32
atgaaacttc ctacggcac cagggggtcc ttatgtactg gccctaatac cagctaatacc      60
tgatggcaac aaaatcatga aagtggcccc cagtgcctgt agtctccctg cacagatgca      120
gaggggaagga acagtgcagg agataaatga ggccagcgtg gtattcaccg gaggccaggg      180
agcctgcgtg cgaagggtga gactcgcatt gtcttctccc ccatgtcggc tcaagtggga      240
ggccaatgaa gagaggccca ggctggataa tggcaagaag actgttcaga gctgagaggt      300

```



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gatgtcagcc ccacagaagc tgagagaagg aaactggggt taatgttatg caatgccttg 360
agtgtgtgta tggagagcct gccgtggaag cacttggggt ttgttggtgt tgttgggttt 420
ctttctgttt ctatTTTTTTT aatgaagact tcaggagggt tcaactaagc ttgatgaaaa 480
cacgtgtgtt tggttcctgg gttctgctgc ctgctgctgc tggagtgtgg cctctgagcc 540
agcgcgcgct cgtcatcaca cctctggg 568

```

```

<210> 33
<211> 642
<212> DNA
<213> Homo sapiens

```

```

<400> 33
aaacaaaata gcacttacca tgagtctata ctocaaatat gtgttcaata caaactgtaa 60
atatcaacac aataatgatt attttttaaaa atacaaccag gaagtgagca ttccgaagtt 120
ctggggagaa gccaaagtgt gaggtatata tggcttgctg cacaatgggtg tcaactctca 180
tttttcttaa aaggggataa aagggaacct ggtcttctta taaagaaaac ccaactgactt 240
catgaaaaag tcacatctcc cttgggtata tatTTTtacct attcaaatga ctagcaagct 300
tgctattgaa aatgctgaga aatattaata caaactctct cagggttaaag atataaagtc 360
tgtgaaaata catacagcca tatgattaac acaaacagtc ctttttttta aaaaaaatgg 420
catttttatt tgttatattg ggtaacaggc agaataaaaa gaaaataaag caatgcatac 480
aaatgaggaa actgcattct gtattatata aagatttaat tttatcatga gctttggaac 540
attctatata ggaaaaaatt gttagttttt ttttcatttt tagtctctga aagaggatcc 600
tgtattaatc taaaaaccta aatgcaaact tgtaccagag tt 642

```

```

<210> 34
<211> 512
<212> DNA
<213> Homo sapiens

```

```

<400> 34
acagtcctgc aaaatgcaag caccagggga tccgattcta tttattcttg tgatacatag 60
ttcagttttg gcaaactaat gttttgggaa cagtgaacaa tgaatttgct ttgtctttta 120
tgatataatc ttcaaagaca aatattagaa gcagtatgtt tagaaagaat tagaagagca 180
gtgaactcca acatccaaag tttcaaatgt cgtgactgtg tgctgcctat gctaactgtc 240
tggcatttgc aatatggatg ctttgcttaa gacaaaatgc tttcctagtc aaagccccag 300
aaaattgtct gctatcacag tattgactgc tgtctgtcag caagtatttt ttcccttgctt 360
agaaacttca tcaaaatgcc ttctcaaaaa tcagctgtca cctcccttc tattcagcta 420

```

acctcacact gtatcctcct tgggatgcac acttactaat cctcttgagc caagttagac 480
 caggtttgtg gggacgtcag ctcttgccct ct 512

<210> 35
 <211> 670
 <212> DNA
 <213> Homo sapiens

<400> 35
 ttacccttg attacaggaa gggcatgtgc taaaagcctc tttggagacc cacatggccc 60
 tcagatgagc aattgttcag attccttttc tttttctttt ccatgggaat aagctttcct 120
 ctctccaaag tacatgtttt aggctttttt attttcttgc tactcccaag gacctggtga 180
 tatttttctt taccatgcat taaacagaat ctgtgagtct tttctggaaa aaaaaaggc 240
 aggagggaac atactagtta aaaagtttct gggtagacta ccaagatgta cctattttatt 300
 gatatacaaa tggcataagt tattgaatgc ttgctatagg cattctctaa gaactttgta 360
 agaattgact tacatgagct acttcatagc agttcgatga tatacatgtt gttattatca 420
 ccactttaca gataaggaaa tagagacaga catactgaat gacatgctca acgccactcc 480
 actagcaagt ggcagaacca agcttgaaac agctgggtctg actccggagt ctgtgctctg 540
 atctatatca cagctatttc tatatgtgct attctactaa tataatattt ttgaaatata 600
 tgaaaaagta attttaatag aatgagatac atattggcaa tattgaagtt ctcatacttt 660
 ttgtcctctg 670

<210> 36
 <211> 659
 <212> DNA
 <213> Homo sapiens

<400> 36
 tctcatccca aggaaagaga ggtattttctc cagcctgagt aaaagagcac cacaaaggaa 60
 caggatctga gacctgggag gattaaatat ttctacggg gagtcgaaaa taagattgct 120
 ataaagaggt tctcctacta caggtaggag acagccttga gactgtgctg cttccaggaa 180
 gagggaagat tcttagaaaag ggggggatcc cttgagggt tgaagatgaa aagaaagaaa 240
 aacatgaccc ctccccacaa aatccctcaa acaagggtg atcaaagaat cagaaaaagt 300
 cacattaaag ccctattttct taaagaattg ttcttttctg tagcaacaaa agaaagagat 360
 tttgaactta gaaccaagta agccactcaa acccattcct cctatctcta tgcttatctg 420
 ttaggaaagt ccagctgaaa tagataataa taaacattaa aataacccaa catccaccca 480

aagttagttt aaaaagaaaa tggaaaatga gaatcaaaac attacagcag atgaaaacat 540
 acacaaacaa agacatgaca caggaaaact ataacacaaa attccaatag gggcaaaaat 600
 acttaaaaaa taaaatttag atattaaaga tcgacacttt ctgacaagtt caaaactca 659

<210> 37
 <211> 536
 <212> DNA
 <213> Homo sapiens

<400> 37
 atttacatat gtataacatt cccttacagt gccatatagc cccctccaaa atttaatact 60
 taaacttttt gtgtttattt ttccccagtt gtatacagtc ccctgaaata acaaaagctt 120
 attttaagga tttagaaata aattaaaatc ggaaaagact gtcttaaata aagacatata 180
 acttaccac aaagaagtca gagatggcca agttaagaa aaaataacta ctctgatgtc 240
 taagggtttt gtccaccaca aaagctaaaa tgaccaaagc atttcctagc attatagcaa 300
 aagctactaa ggacataaaa aatgctaaag taacacgagt gcttagtgat aaattgattg 360
 tgctattagt atctggcatc acatcaaag atgaagaagg tcaaattagc aaattaatcc 420
 agccagacaa ttctgacaag tatgttttct aatcacatac ctaaaatgtg tagtcttcca 480
 ctcaaaacaa cactgggtta atctaagtgt gatctcatag tacttctga ttcttg 536

<210> 38
 <211> 543
 <212> DNA
 <213> Homo sapiens

<400> 38
 aaagtctaaa atacaggata atcatgacct cccaccatcc accaccctga aagtcatttt 60
 atgtctcctt atattattga acacaatgtc tcaattcaat gtcgtacaca aagccatcca 120
 taatttgaac agcatccttt ctctccattc tcccacattt aggttatgtc ctggcccacg 180
 ctaccctttc ataagtctac caaactcca cattctttca catccccata gtttggatgt 240
 gctatttaat ttgtcttctc caagcatttg tacttctgc caaacacaca tactttcttc 300
 tccagaataa ctcatattca ttcttgaaga cttgattcaa gttttttctc ctctgggtgc 360
 cttctataaa ccttcttttc tctgtccaa ttgggaagt gctgttcct ctatactctc 420
 atcaaccata gcagcctagc ctacgtctat tatagatttg tcgtaccttg ttgtaattaa 480
 ctgtatgttt attaataatg atagtaatga taattttggt atctgtaggt aattgaatat 540
 aaa 543

<210> 39
 <211> 380
 <212> DNA
 <213> Homo sapiens

<400> 39
 tcatcgaaca agaattcctc ataaaagaga ggggatagag gcctgaaaat tttaaataaa 60
 gttcaaaccct tgtaattagt gattctaaaa tttagggtgtg taaacttgag taaagtttta 120
 gtgtcacctg ataagtgtga agtaaatgaa gaatcctggg ctgtactctc caagtgtctg 180
 ggaagttttc aaaaacccat atcctgggta aaatgcatta atgtatggct gtgtgatatc 240
 cattttaatg ttgttgacag ctttgggcag agaattctag ctttcccctc tctatatatg 300
 taccoccttt cctccacaat aattaatttt tagttgaatc aatgactgcc catccaaaaa 360
 acaaacaaac aaacaaataa 380

<210> 40
 <211> 456
 <212> DNA
 <213> Homo sapiens

<400> 40
 aaaaaaaaaa aaaaaaaaaa aaagggtaat aagtggggag tagggaacac caggtgctta 60
 gtatatacta tggtcttggt tgcaaggaat ctgtcaacat ttaagcacia gtcactctatt 120
 aatactatcg tagtcacagt atgccacaaa aaaacaaata actcacaacc aacatggtgt 180
 acattaaacc agttacataa tatatacaaa catatataaa tagtgtcaga tataaactaa 240
 acattacact caaaaagagt tagaggtctc tgcagaatca tgtgctcaaa gaatctatga 300
 ctgaaagtac atgttaaatg caatgcagga tatgtaaaag tgtaattat ttaaatgtta 360
 tacatttgca tttgcagatg ttattttata ataagctact gtccttaaag aattttaaatt 420
 catctcaatg aagagcaaag aggaaatgag aaaaaa 456

<210> 41
 <211> 399
 <212> DNA
 <213> Homo sapiens

<400> 41
 ccgcctgcc ctgtggcagt gtcgatgttg tctacttccc cgtgtgcctc tattcttggg 60
 ctctgtctct gttctcaaca ccgctgtgtg ctgagcacag cagaaatcag gacattcacc 120
 attccacctg cagcctctgg ggcccctctt tgctctggcc accttaccct cctcgggcct 180
 cccaccatt gcactcacca ccccccaac tcacctgcc ctccacctgg aaggggatca 240
 gtcctgaat catatgacct gggcacgcc tccccagtc tgggatggct gtcctcctt 300

ccagggctgg tgctgggctc caccacctat gaaagcgcca ggttatctgc tgtgtccacg 360
tgtgtctctg tcagtgggtg tgggggtggg gaggtgtct 399

<210> 42
<211> 619
<212> DNA
<213> Homo sapiens

<400> 42
aataaaatgg caaacttttt tccatagtagt ttaaaggagt aaacttggtt acccaataag 60
ataactgtaa gaaaatatcc tccagtagcg aaacataaac gcagcaattg caaatgtcca 120
catatagtat agatgagtagt cgtatagtagt ttctctctctt agaatgtaag ctcagggtcaa 180
ccaatcccat cctctcttta tttctctccag tgcatacaaga aaaacaatgt ataaatatca 240
gatgctgaat aaatactact gacaaaagta ctttttttga aataaagaga aattctacaa 300
agagagttta tttttgagag ttttccaca caaacttctg gatcagcata ccaataaaaa 360
acagcactgc atcttggaat actcaggcaa aactgagtat atgggaatct taaagtgctt 420
cattcatctt ctgaaatagg aaataagcag acatttggtt cactgcttaa gatttcctaa 480
attttttcta aggtaatagt ttagaaagta ccactttggt tctcccaact ttagttccc 540
ttattagacc aaccgcagga ataatttttc tactttaaaa gttttttcaa gtcaacatcc 600
ctgggatcta aaacttagt 619

<210> 43
<211> 473
<212> DNA
<213> Homo sapiens

<400> 43
ccacaactta atagtttagag tggtcagaat ataattcaaa atttcttgac atataaaaaa 60
atggaagaca tttcaatcaa aaacaaaatc aaacaagatc agtccaaga tgaaagagat 120
cttggaacta gcaggcaatg attttaaaaa cagctcctat aattattcta aagaaagtaa 180
aacaataat gcccgtgatg agtaaagaga tataaaatct tatcagacac agaaagtaaa 240
atgaacaaaa tggcaatttt ataactgaaa tacaattat tggaactaaa agtttcagag 300
agtagactta atgacacaaa tccagaagaa agagataaca gaggaagaa taagttaaact 360
taatatcagt taataaggat tatccattat acattagagg gaaaagatgt ggtgaaaaca 420
gaacagagac tcaggaccag ttaaataatca aatggtataa cagatatata att 473

<210> 44

<211> 588
 <212> DNA
 <213> Homo sapiens

<400> 44
 cattgtatac ctatccttgc acagactgtc ttctggtctc ccatttatca tccattttca 60
 gttgtcttgg tcttagtggt tgctatctgt tgggccccgt tccacattga cggactcttc 120
 ttcagctttg tggaggagtg gagtgaatcc ctggctgctg tgttcaacct cgtccatgtg 180
 gtgtcaggta aaaccttagc tggatttggt gcatgactag tattcaggta acagcacctt 240
 ctcttcacac ttgcttagat gcctaagtac tccaatttat cacggggatc tgccatgcta 300
 taatgaagac atttgatttt tctttttatc agagattgat tatgtttgat actgtttcaa 360
 atacatatac accagatcac tattttcaag gctactttat ggaaaacctc aagtctaact 420
 gtgatgatta cagaaggaaa atggtcaagg agtgattcct ttggttatcc tccaaatggc 480
 catgcaatta aattggttct tatttagtaa acacccatgt ccctggaaat ctcatattgc 540
 ctttggaag tatttatatcc tcatgaagga aaactaaatg gtattcat 588

<210> 45
 <211> 613
 <212> DNA
 <213> Homo sapiens

<400> 45
 ctggaagtgg gcctttgggc agcttccttt atcctggcat tgcctgtctg ggtctactcg 60
 aaggatcatca aatttaaaga cgggtgttgag agttgtgctt ttgatttgac atccccctgac 120
 gatgtactct ggtaagttgt gaaaacttaa gaaaaacgag ttgaattaag ttgtgaagaa 180
 cttcattctc cttgtcaaca tgtgagcagc ctcaaagagt atccttatgg atcctcttct 240
 cgccagtatc tccattaggt ttctccacac atacaatcaa ggtgataagt ttgattttta 300
 aggagagggg aacctttaga aaaagatttt gaattcaatc atgtaacctc agtggacaca 360
 aatatattta aacatggatt ttaaaccattc atagcagcca gacgcagtgg gaatgcagca 420
 atcaaggag gtaaggaatt tccagagtca ctgactcc acctcatcag tatgcaattg 480
 cagtttgctt gaattatgtc ccctataaag acatgttcaa gtccacacc agctccccat 540
 acctgtgaat gtgatcttat ttggaaatag ggttttttca gatgtaatca agctaagtta 600
 agggcatgct gga 613

<210> 46
 <211> 728
 <212> DNA
 <213> Homo sapiens

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<400> 46
ctccttggtt tatatatatt tctgagtcct gtttggtgac tagaatggac tctatttcag      60
agcttctgct ttttgtttct gtgtcacctt gtcattttct aaattgattg gggcaccctt      120
gggggaagtg gtctgtgaag gacaagtgtg caccaaggta ctctgtaggc agggcaggaa      180
aggagtgagc cttggggggcg agcacaagtc aaacacaagc tgggttcttc ctgtcctcac      240
cttcctggag aaatcaggac actttgctgc gggaaagcat gacctgtttt aaccctttgt      300
ggtgggggtg ttttggtgca atactgctgt gggaaggcac caccctttct tgttttccac      360
ataggactca tatattcata ttttttatac ttattctgcc ctctaatactc tttctgcagc      420
catctcattc attttcatcc caactacat tccgttttgt acacttatag ctatattatt      480
gcctctttat ctcaacaagt gtggtatgat aaataagtga tgtttgtaca ctgtttttgc      540
aaaaaagctc acagtgcctt ctgggggtat ctactaatta atctttacag aatccctatg      600
agatagatag ggctggatag ggtattcagc acacaattca ctagaccatg ctgtctctct      660
attatgataa aggattatta ttatgttaaa atgtttatac actgaataca taaatttgta      720
gagattga                                          726

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<210> 47
<211> 578
<212> DNA
<213> Homo sapiens

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<400> 47
cctcttttaa attatcagtg ttcacagtat cttccaaaag acatgtaa at gtataaaggt      60
ataaaaaata tacatataaa ttttacaatt ttgtgagcta tatagtagat ctcttatttt      120
gtccatagggt cttaaagatc ttatactgta ttcaggaata aagataactt cagtgggagg      180
cctttacagg gctaattgagt aagcattatt ttgataaagt tctgtgttgt ctacaataga      240
tatagtagaa atactcttgg aatggtaatc atcccaggcc ctgctttgga gcggaagaaa      300
tagtcaatgt agaactttac agtatattgt acacagatgt gcctgcta at aacttctgta      360
gacagcaaag ttttaagagaa attaggtggt aaatgcaaca tatgtatcta aataaatttg      420
gtctgagggg tttgataaga tgaaacagta catagtccag aaaattttta tactcaaaga      480
attatagaaa atatctgaaa tgttttcagt tttgtgcata tccagaaa at gtcacctgt      540
gatctgctgg ttggcagccc agtggcagta ttagatgt                                          578

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<210> 48
<211> 469
<212> DNA

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<213> Homo sapiens

<400> 48

taaaaataat acaataaaat gcttgccaga taattctaac atctctgcc	60
tttggtctat tgattgcttt ttctcattta agttgattct tagcataatg agtgatttct	120
aattacataa tactttgggt attatgttct aaaactctgg atcttattta aatcctttgt	180
tttatgtgga cttttctgat actactctaa taggagtggtt ggtgggggtc actgtgtcat	240
gactgccacg taggggggtg aagtacagtt tccccacttg acctgtattg atcctggagt	300
gggagtgatc ctcaactaca ctcggtggga taggagctac tgccccttgt tgggtcccca	360
catataccac cctggctggg agtggcagga gtgctttgtc attgtgcccc atgtggcctc	420
cgctcacact gtggggagga gtatccttgc tgcccctgag tgggtgtga	469

<210> 49

<211> 637

<212> DNA

<213> Homo sapiens

<400> 49

aggatcagct tggacatgcc cattacaaag caaataagta catgacatgt cataaagcct	60
catgaaattg gtcacatgcc aagcacttct ccagtagctc acagacctgg ctaactgcat	120
acaaagaaag ggccagggcc cacctcacca tggcagaggt gtgctctggg cgggtggcagc	180
accaggtggg acagagggca cagagaaagc tctcaatact catggccacc aggagacaga	240
gaccactgt gtcggagaaa taggagacag gatccagaaa cacagccacc tgcaatgccg	300
cctgggtgata cagcatgagg attttctcca gcaggatcac agttacacag gagaggttga	360
ccatatcaac agtggccagg ttaaggatgt aggtcacata ggggctgctc cagacctgtg	420
agtagagaag ccagcagatc acatcattgc ctaccagtcc acagagggcc accagcactg	480
tcaggagaaa gaccacctgc ctgtccacca accactcacc tcccgtagtg ctcatgttca	540
catgtcttga ggtctcagtc tcattgtccc aatccagctt tccagagagg gttgcgagaa	600
gctaggctat ggtgggctac cttttgctgc ctgcgca	637

<210> 50

<211> 638

<212> DNA

<213> Homo sapiens

<400> 50

catttgaaat atttcttttt ttaaaaattg ataaaataat gtaatagtat accattttga	60
taatataataa tttatattaa atttcaacaa aaaagcctgt ttgtaactaa tattttta	120


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taattatttg gtcttttaaat atctgtcata tttaaaaact gatattctaat ccattctaaac 180
aaaatccact tcaaattcaa aataacctgg aagaaaagca aacaaaataa ccaactttta 240
gttgtaaaga tgataactat tatcagggat gtgcctgtgt ctgcttctat ttactgtcac 300
attttaggca ttcttttcta cttgacagtt cacttctgag tgactaggaa tgaagcttat 360
tttagcctac tttttcccat ttgtttttgt aaaagaagaa acacagagta ttcttgaaaa 420
tccagtgtgg aacattttga tgtttaccat cagcaatatt atgaaatatg tcacatatca 480
tctacatctt ttggtaatt atttatgtac ctttcatitt gacactcaaa aatggccact 540
tttttttctg tgtatgaaac ccattctatta catccgattt tattctattt caaaactatt 600
ccaatcatca ttcattggac aaacagattc tcaatatt 638

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<210> 51
<211> 311
<212> DNA
<213> Homo sapiens

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<400> 51
gcaaaatggt aaggctatit atcacagcac tatctataat agcaaagtct aaaaggataa 60
aaatgtccat ccagtgttgg aagctgaata atctgtttta catttacaca atgaagaata 120
tacactgctt tggaagtgat caccaggata aatgaacaaa acaaggtaga aaaggatata 180
tgtaataata tataatcctt taaggaatgg ggaggggcaa atgtaattat atttgcttat 240
attttttaaaa tggaaagttt aacctaaaac taataaaaat gactttacta gtttaactga 300
ctcaaccatt g 311

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<210> 52
<211> 570
<212> DNA
<213> Homo sapiens

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```

<400> 52
ctcctgggcc cggaagacgg aagactcggg gggcctaat aaggagtaga ggagtcgggt 60
taccaggtgt gggatgagag aactgccccg acgccccctt tccccacccc aggcaaggaa 120
gtccagctgg ttgggctggc ttagcctctc cctcccgtga aatggaaaac tctctctatg 180
cggagtcttg gggactgact tgcctagaga cccctcctgg ccagactag tccccactcc 240
cctectactg agcttctgag cgtccgacga ggcacagtcc ctcccgtcgt gcagcgggaa 300
aacggactcc cegagagggt gaggaatttg ctgagagtta cacagtgggg aagacgccaa 360
gccaggattt taacgcaagt tgtccagact ccaagggcc a gattctcctc tgacattaac 420
gccgtgcccc aggaccatgg actgctttcc ctaacacca gacagaaaac tgcgatgcct 480

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tggttatgat tgaaagaccc agatagggat ccccttccc aagtgggttg ggcgga-gcg 540
 gccgctgtcc ccgcgggcgg tgagcgacgc 570

<210> 53
 <211> 600
 <212> DNA
 <213> Homo sapiens

<400> 53
 gccatcccca ggaagctttt agaggacaaa aacttagttt ctgcattcat tgctctgtgt 60
 aattaaaatt gggagtaatc cccctacaca cagtatgaag ggaatacag tagtgaaaaa 120
 cctcaaattt ttctctgtaa attgaagtaa ttgacctggg tggcatctaa atttcgaacg 180
 ctcaaaaagg tgagttgacc ttgctgtcta tcaattaccc actgtactct cagatccttg 240
 gaaatttctc catatcctct ggaggccttt cagagcagaa atttgcttgg gggtttgtgg 300
 gactgagcac tcaggctagt gtagaatgtg gcagagcatc agatcactgc tctgaagacc 360
 atccctgtca tagctctggg gttctttttt ggaagtggaa ccagagtcac tttccaggct 420
 gggatgatga acttgtgagt taactggata cctcagaaca gtggaggcaa acaagggaagc 480
 acaggaggct tctgaggctt cttacattgc cctggagcct gtaggcctca ctcatctgcc 540
 ctcttgtatc atagttttatt tgtttggttaa attattttta cgttttgatt taaaattttt 600

<210> 54
 <211> 720
 <212> DNA
 <213> Homo sapiens

<400> 54
 aatagtcag actaaaaatt tgattaattt ccaaggtaag aaatatacag ttaattcctg 60
 ctaacactaa cacagaaaaa gtgaataaag attatcaaaa acttttttaa taaaagaagc 120
 atttctgtag ttaaagtgat taagaagaaa tgaggtaaat gagaacaaac tttatgaatc 180
 aggagaaaaa taatcatttg taaaaaaaaa tcctcaaag cagtcactct atgctaaact 240
 ctgctcatat ttttttcaat aaacaagcaa tattatatgc aaattattat gtagttaaca 300
 tttttggaaa ttttaattata atgaaaagag tttggagttt ttttgaaaga cataaattga 360
 gtctttattc agataccaac tacatgattg taggcatgac atatgttcta gatcacggat 420
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 catattgtat atactttgca ttattgccta attccttgtg cctgagttta ttgtataaat 540
 tactgagggc caaatgaag ttgtaaacca acattgaaaa aagaagcaca ctaaatcaa 600

atagtaagct gaaaaataac tagtttaaat ttcattccaga tgtatctgct catatgtcat 660
 tcaaaatctt cggccaatta ttattttacat ttaaaaaatg caaatgatat ctgctagtag 720

<210> 55
 <211> 619
 <212> DNA
 <213> Homo sapiens

<400> 55
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 acagtattag tccatcagat aactatgcta tatattatcca tcttttatca gtgtgtattt 120
 cagctgtttc ccatttgagg taaaggggta tacaacaat actgctatga aactcttca 180
 gcatgactgc aaatattcat gaccaagaat ttctcccaag cagtgttttt caaactgcag 240
 actgcaatct agtaatgggt cattaaatcg atttagttac aataagtggc atttttttaa 300
 acggattata atacaataga aaatatcaag gtaataggca cacattctta gcaatgaaac 360
 tacagttaaa ggaataaact tataaaacag acatgcttca taaattattt tctaaatttt 420
 tatcatgttt aagattttta ttgtatttaa atattagtaa attcacattt gatataaaca 480
 ttttcatata ttaccttaa ttatatgtag taaaaataac ttatacgaaa ctacttcat 540
 gtgtgtataa tgggtcatga agtaaaatgt acttcagcgt gggggatcat actaacaaaa 600
 gtttgaagaa cacttctct 619

<210> 56
 <211> 659
 <212> DNA
 <213> Homo sapiens

<400> 56
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 aacttactga gtgtcagggt ctgtggtaac acattatgtg cattacgttt gtaaatccca 120
 acaatgaatt aagcagcctt atgattctca tctcacagaa tctagaggta agtaacttgc 180
 ccaagttaca ctgctggtaa gaagccctac ttcattcaaca acaactacac ttgaaacaat 240
 agcaaaattg aagtgtgaca gtaaaactgaa tgcaatatac attacagtat aatttatttt 300
 attacttaca catttcagca aagtgcgaagt tttctggagt atttatcttg ttcccataga 360
 tgttgtagag ggaattcaat aataagaata gtagccagaa aagaaaaagg cagaaaactt 420
 aacagttata agaaaatgaa aaatttttagt acttttttct attcccatgc tatatatcat 480
 aatatagagg aaattaaaga aaaatatattt tgattacata acttttataa ataataattc 540
 tgtaggtgtg aatatgtgtg tgtaaacctg tatgagtgat taatatgtca ttagaagaaa 600

ggatggttacc cactctaaaa taatggtaga tgacatttat gcactaataa tatgaacca 659

<210> 57
 <211> 640
 <212> DNA
 <213> Homo sapiens

<400> 57
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 aattggtggg ggagagctag tttatatattc atggccagca aaggcttctt tgagcagagg 180
 aatttttatc tgagtccaaa cagggggggc acaaccatgc aaagatgggc attcaaaata 240
 gagaaattag caaacacaaa agccaagggc ctgtcctaag aaggaaaggg aagttggggg 300
 gaagaaaaga gaatcaaaag tgtgcaggca ggacctcatg gtccagaaga agtctgaatt 360
 tcattctcaa gagactcgga ggctctata gaatttgagc atggctgtgt agcatttttt 420
 tcttttttct ttttaattttt aatttttttt atttgaatac agacatcatt tcaagagact 480
 gaatagcatt ttctaaaggc tactctgacc actggttgtg gaatgactgt gaagggtgt 540
 ggggaagggg gaatgggtgc tcccacacct tcacactcag cctgtttggc atttgctttc 600
 attttgctca agtgccacag ggcttagatt agagtgatct 640

<210> 58
 <211> 637
 <212> DNA
 <213> Homo sapiens

<400> 58
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 tgctaaccta cattagacag ttctcatggt caaaacatcc agtctattta agattggatt 120
 cccaagaaa atgtgctaca catgtgaaaa tgagtacagg ttgagcatcc caaatccaaa 180
 aatccaaaaa tacaaaatct gaaatgctcc aaaatccaaa agtctttgag tgtcaatgtg 240
 atactcatag gatatgctca atggagcatt ttggatttca gatttccaga tttgggatac 300
 tcgataagtg taatgtaaat attoccaaatt caaaacatat ctgaaacctg aaacacttct 360
 attcccaagc atttcagata aggaatactc aacctgtaat ttaaatacaat gccagaagaa 420
 ctattagggg aaaataaaat ttaataacca aagttagatt ttacagcttt aatggcaact 480
 ttagaacatt ttaatagcac aaaagaataa aacagacttt ataatatcat agcaagtaga 540
 aagcaaaata gtaactttat tctatgaatt aaaaagtcac agtatgacat agttcttagg 600

tttacagcca ctatacaagg gacaaagcca gagccaa

637

<210> 59
 <211> 640
 <212> DNA
 <213> Homo sapiens

<400> 59
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 tttctgccat ttgtaacaac actgaagaac ttggaggaca ttatgtggaa tgaaacaaac 120
 cagatacaca caaaaaacac tgcaggatct cacctgtaag ttaaattctaa agttgagttc 180
 atagatgcag agagtagaat ggcagttatc agggatggga aaatggggag atgctggtca 240
 aaggatagaa agcttcagct gtgcaggatg aatacattct acaaattctg ggtacagcgg 300
 tggcctacag ttaacaatgc tgtactgtat atgtaatatt ccctaaggga gtagatctta 360
 agtgctttgt cacaaaaaaa gaagaggtaa ctgtgtgaag agagggatgt gttagtccgc 420
 taattcacat atagtcacgc tagatgataa caatcagctc actatatata tcaaaacgctc 480
 acaccacata ccttcagtac gcaattgtaa tttcaaaaaa ttatggcaaa cattgtaaga 540
 gtttagtcaa attataaaat aattacatat ctactctgtg accagactgt gtttgatagg 600
 gagatgatgt ttctaaaatg gaaagctatc tagtcacata 640

<210> 60
 <211> 486
 <212> DNA
 <213> Homo sapiens

<400> 60
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 atcttatctt gtgtggtatc cctgtatcta ggatgcggtg ctggtactga acaggtgcac 120
 agtcagtagt taaggaacaa ttgaatgatg actgctgttc tgggcttatg agctttttcc 180
 tgtgccttat tgtcatccaa ttttgctat ttataagatg tcaatttttt tttaaatgta 240
 aggggttgat gagctgttat ttggttttat tgaggggtgt tttgggacat ttatctcagc 300
 aaaccatggc cagcctcca tataatgtcc aagagaaaga gcctctaaat gcaatgtgtt 360
 ggatgttagc taagtgaat caccacaaga agctcatgac tcaaatcaca gaggctcaca 420
 aggccttagt agaacgggca cctctgggct tgctgtggg ttttcttggt atgtctgtat 480
 cgctgt 486

<210> 61
 <211> 607

<212> DNA

<213> Homo sapiens

<400> 61

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agctctgtcc agagggctca ctaaaaaac ttgggtttct attaaactag tttcagacca      60
ctgtgttttg ctctgttgaa gcataaactt caataaaatt aacagtaagt aaacagcagc      120
tatgaagcta tcgggaggtt cgcttcaggg tttgttttcc tttaacatit gctttaattc      180
aaaccataaa ggaaaatatt ataccgtagc aagacttagc aatactttag ataaacaggg      240
cctaaacaga tatagataat atagataatt atttttctca aatatatatt tcatattata      300
tataatttta tagaactgta tcaaaatgat tacataagta ttatatataa aaaaactatt      360
tttcccaaaa tgacaataag cattaccaca gcgcaaaatc tgtgccacag gaaaaactat      420
cagaaagacc cctttacctt cccttaacca ttaatacaga acaaacacaa caccagcgag      480
tccctgcttg tgtggagtg ctcctaagag aaataagtat tagtaagaca gctgtttctg      540
gataatgggc tcctgtgtct gtgaaaactg ctacaaacca aacagtttag attttttgac      600
ctgacct                                           607

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<210> 62

<211> 546

<212> DNA

<213> Homo sapiens

<400> 62

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aaaagcaaaa tcttgagtca gttgaagcca tgatatttta ttccttcatg accttgagat      60
agcagtgcata aaaccatggt ttgtacctat catatttttt tctttattca atgatattat      120
tatactgggt aatatttgggt agtcaagaga gcatggccct ggtttggaac ttccatggat      180
gagtacataa gaatgatttt aatcagcata taattatata gaatcatata tatataggat      240
ctagatatag atctacttgc tgacttgccc attcacacat ctctgtgtcc catcagtcct      300
caacagaaaag aggatagcag atattccaga agaagggact ggaaaacat ctagagcaag      360
ttgcatcttt gatttacaac ctaggaaaca gaattgggga gccgatcaaa ggatcttgct      420
cctttgcccc agaaaacaaa actgggacac cagcaatgac tgttaaatag taccataggt      480
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ttggga                                           546

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<210> 63

<211> 550

<212> DNA

<213> Homo sapiens

<400> 63
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 agaatccctt accgactggc ttctagtcaa atttggccaa tgagagttac tggtagagagg 120
 aaagacgcca ttctgatctg gcaccagtgg tggaggtgtc tcagtggcca attcggcact 180
 ggccacatag ggctctttct gtgaaggtag agaatgggca ctggccacac cgtaacctcc 240
 agcagcaaat gcagctagag ggctccagcc taagagtggg agcagctctc tcatctctgg 300
 gcagccttcg ttcttttctc cccagcctt tccaatgcct ttgcaaccgt ttcccagaat 360
 taaatccctt tgtgtttgaa tgatgtacag tgttttttgt tttctgatt gggactgact 420
 ggctgattat agaccaaagt attcagaagc tttgggaaac caaggggttt ataagtcaaa 480
 atagtgtaat gcttttctgg aaaccagtct tccctccaaa ctgttatcag gcaaatttta 540
 tgcagttctt 550

<210> 64
 <211> 598
 <212> DNA
 <213> Homo sapiens

<400> 64
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 aggcttgact catatgagtt tttcccaatg acacctttga taattatttg ataaaaataa 120
 tactgtttta aaaaaaaaaac ctgcgtttta ttcttaacca tagttcagtt ttactctgag 180
 atatgataat gaagcctatc aaagaatggt ctccgggagt tagttccgtg agctctgggt 240
 tccctgtgga aggccacctg tgtgctgctg ctgtgggaga atgtagggct tgagtcactc 300
 ctttccctc aagctgocat ccatttctca ccaacttttg accacctccc agaagtgagc 360
 tacagtcagc caatgttttg gtcaaagact aaccacttat acaatgggtg tcccatgaga 420
 ttataatact atatttttac tgggttcttt ccatgtttat atatttagat acacagatac 480
 ttaccattgt gttacaattg cctacaatat ccagcagtaa catgctgaat aggtttgtag 540
 cctaggagcc ataggctatt ccctatagca tagatgtgca gtaggctcta ccatcatg 598

<210> 65
 <211> 716
 <212> DNA
 <213> Homo sapiens

<400> 65
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 ccttccacag atacttactg cacactcatt ccaagtctag gtactcaggg tacatcagtg 120

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aacaaaaccc atacattagt ccggttccac tgagaagaag atgccatgat aggatgacgt 180
ttcctggaga aagagcaagg aaagacaagg agagcctcac actgtgatgc aggtctgatg 240
cctgcagaag gagacaggga agggaggagg ctgggagtag aacagccttg ggctgaagtg 300
caattccagg aatgctcttg cccaccagc ggggaattct tgaaccaaag tcaccataa 360
gagagtcttg ctttttgcca aatggatccg tgtaaatgac cttgctgtgc tcagctgctg 420
gctggaaaca gcccgaggga agtgtgaact caatatgaat gtgatggtgg gtccaaggg 480
gtgagctgag acggtgagtc cattgtgctt ctacagcag agatctgagc cttgcagttt 540
tcatggacac ccctaattgt ttcatggagt gagagagaca gaaggcactc agtaagcata 600
agaaatgaat gaataaatag ataaaggat gatagaagcc tgtaagtatt atgcaaaacc 660
cgagggtggca cggagaagga ttgggagtg caggatgggg agggctgcaa ctgagg 716

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<210> 66
<211> 408
<212> DNA
<213> Homo sapiens

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<400> 66
cctggtttta tggtataaat ttataatcat aaaaatattt ttaataaaag attataaacc 60
ttctcctaata ggccaactat ttttgaattt ctgccttaat attttgatga tactttttatt 120
tcttcctcaa gacacattac catgtctatc atgtctcctt tcacagtgc gcaccatcat 180
atttcatta acatgtggct ctggacatac aatagatcca actgcacccc ttaaaacaca 240
ggcgcaatgt ggtagagaaa actgacttaa catagtaaaa actatagcct gagctctgct 300
caccaagctg agtattacag agacattatc ctgtttccat ttgatagagt taaagtgatc 360
tcaatcagag agcaagatct aagcttaatg ggtaaaaatt cagagttg 408

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<210> 67
<211> 576
<212> DNA
<213> Homo sapiens

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<400> 67
ttctgaaact aagcaaaaat gagccttaaa ttgttcagtt ggtgagatag agcagagact 60
ttggatgatg tagaacatga agatgtatgt atatattcat ttttggaggg gggtacattc 120
ctctctggct actatatact cctagacaaa aaaatacagt catcaatcac tgattcagtt 180
aaatatctgc ttggcaacgc gtttcacaga taggctatta gaagaaacaa gcaaatgttt 240
actgagtaca tactgtgttc cagacacagt gttaggaact ggtggataaa acataaggag 300
aaggacaaag actgtccagt ggcagctaca gtcaatggca gggagtatga tcaagtaatt 360

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ggctaattggc atcactgggt accacagcag tataggggag gaatattcca aactggggag 420
 ggatggggag tttggtcagg gaagatttac catagaaaat gctaagatga aacctgaaag 480
 gctagaagca gttagccaga ttcaagggtg gggagaagac ttttttaggc agatgacacc 540
 gcatccatgg aagcaagggg tggaggggaaac cagaag 576

<210> 68
 <211> 613
 <212> DNA
 <213> Homo sapiens

<400> 68
 acctcctcaa gacctcatag gattaagtga gatgttgaca cacctcactg cactgagtgg 60
 caaacattca tcccatccct cctcccacca gtggccaacc acagggcatc tctggtttac 120
 atgacctacg gcaactcgag gccattcaca gtaaaggcca ctccagatag tgatgatgac 180
 actcacttgc agaggcagga ggggtcccgcc acacccccct ccaaaggggc acacacacag 240
 atgaccaaata gcatcccatg aggcagagcc acccaaagtc ccttagacta aaaatcgtct 300
 aacacacaca cacactgttg gagcccagtc cgcggagtgg gtgagtattt cctgttccaa 360
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 ccatagagca tctcagtggc cagcagagga gagaggaggt catttgggac catttactca 480
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 tcataatgct ctccccaaat cagtaccaca cagaccccc cttctgtgtt gctcagaccc 600
 ccgtcttcca gca 613

<210> 69
 <211> 607
 <212> DNA
 <213> Homo sapiens

<400> 69
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 aggctgagca gagccatata aacctaggga gaagcccgtg cttgaagcct catgttgtgt 120
 ctgtcaagga agtttcaagg ctaggaccag cctccacggg gcagagaagt cgtgctttct 180
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 cctggttccg agcctgctgc agctccgcgg gccgccccct cctgtttcac ccaggggagc 420

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aggcgtgttc cctccgcagg ggcttgagac ctgccgtcct ttcccctgga ccctccctct 480
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gggccctgct gagcagcaga gaatttctta gaattttcat cgccagatgg ctctgggtta 600
gggctga 607

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<210> 70
<211> 596
<212> DNA
<213> Homo sapiens

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<400> 70
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ggagaatgat tggcagggtg cctatgttag atgaggaaga gtcagagata tagcctttct 120
gaaaaagtga cacttaagat gacaaaagaa gaaataagaa aagccacaag ccagcgtct 180
caggaacagg attcagcaag tctgaagccc caacgcagaa aagtgtaatg cgtcttctag 240
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gtggagccgt cagcacaaat atggcattta acattgcagg gaaggaaaag atgaccaga 360
ggaaagggtg agatagatga ggcagaaatg agaagacca gcacacagag gaacagcctg 420
actttgaagt ctggccagac tttaaagagg aggctgggaa ggagggcagt gatggacgag 480
gaaacagaaa gtacaaccag acaaatgcc aagacaagaga ctgcttctag aatgtaggag 540
cagccatcag ctgaattcag ctagtaggct gtggaagggtg gtacaggcac aaacct 596

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<210> 71
<211> 711
<212> DNA
<213> Homo sapiens

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<400> 71
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cattgggtca cggaaggac acagggacca gcagtcacag cccctgggtg ctctctgagt 120
ccctccatct cgaagtgcct gcctggccca ccttgtggtc ctcaattgga gcatgcagtg 180
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ggatactgga aagcctgacc tgggactggg tacttcagca gaaataacac agggggagaac 360
agagtcaagt ccggagttca gttcagtcac caggcagtg agccacaagg tggggcagtt 420
ttcccagggtg tctcatagt gctgacttga gccagtgacc tctaaagata gagcagagtc 480
caaggaatga cctacaaaga gtgaagggga caggcaagag ctgatagctt tggaccaaga 540

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ccacgttccc tgttctgggt ccatgatgct cccttcccc tgtagagggc aggtgaggac 600
 catgtggatc tttttgaaa tacatgtgga tgtttgcaa tgcagaaccg actggtggaa 660
 agggcgaaca tgaacagatg atgggaagtc tggccctcat gggaccatat g 711

<210> 72
 <211> 583
 <212> DNA
 <213> Homo sapiens

<400> 72
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 agtatttcat ctgttaacag gaaaaaccaa actaagggtc cttatatatt ggcaagggaa 120
 aacattcttt ggggtgttaac cttggctctt gacacttgac aacttcctac agaatgtcat 180
 ccatgtagaa ggtgattgag ttaattagtt gcaaaaagaa gggaaaatta aattaagcag 240
 agttgaaata ttaatcaaag gtatactaaa aagttggtat gttagtgtta tccactctat 300
 atagatatgt tcagggtgatg ttttttcata taccattgac tttttttgtg tttgtttact 360
 ctgccatgtt ccaggatgcc aggatgcaat attctttcag gcttcttgat aacactagtt 420
 ctaattattc agtaattctaa aaaattatcc atagtagaag catatatgct ttatttgggg 480
 ttgaagggtt ggacatatat gctttttctg tggataatta tatttatttt gggtagattg 540
 gaaagtattt aacacaaatt tagtggtatt agtactagca agt 583

<210> 73
 <211> 323
 <212> DNA
 <213> Homo sapiens

<400> 73
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 tatatgcttt cttttaaaagg tattgttcaa gtgaaaacct tcattttaaa atataaaatg 120
 agtggctcat taagacccta gaggttcttt taagaatata agaggatctc tcattttcat 180
 ttcctagaat ttcacacaca atacacatgc acagtacaca cgtgcctgtg cgtgcatgca 240
 cacatacacc cccacctct gctaataaag caaggccctt tctcactaac ataaggcaat 300
 gataaaatca atattcatat tct 323

<210> 74
 <211> 536
 <212> DNA
 <213> Homo sapiens

<400> 74
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 ctgtcaatat ggccaaacag ctagataagt gcggggcagg acaaagggct ctttgcacag 120
 caggagggca atgttggtgg gggaggggca ggaggtagga aaggcaagag gaggaggttc 180
 ttttccctgg gagattatc agtttggcat acaattaaag aaatcatttt tagttcccac 240
 tcaagcattg aatttttgcc aaccacatac tattaacccc aaatttgata catttcagaa 300
 tatcttgtag ggatccattc tcgccaaagga aaaataaaaa aataaataaa gctctgtata 360
 ggttaaaata aaataaatcc cacactctgc accctcctag gtgcaagtca cctcccagg 420
 agaccggttc tagagctgaa ttctcattaa gaaatggaaa agaatactct atctgaataa 480
 aaacacattg taatacaatg tgtttatttg ggttgggatt ggacctgaac atgtag 536

<210> 75
 <211> 674
 <212> DNA
 <213> Homo sapiens

<400> 75
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 aagtgacttg cccaagaact gtacagctag gaagttccag agcctgccct cttagctgct 120
 tcaactaagc ttctgctat gctagagtac catgctaaca gcaggactac agacacacat 180
 gaaacaaaaa gaatgtaaaa tgtcacatct gttccaataa tgtgaaatgc caggagctga 240
 gagactgcta tgaagggcaa gtctcatggg acattttttc caatgacttt tgtggctggt 300
 gaactgtggt cctgoggatg tgccataaaa aaggaaagca ttgttttctt cccgcagatc 360
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 tttcattact tgctgctagt acttttttga gtaataacat gtataaattt ggtcataact 480
 agagatacat caaaatctat ctggcttcca tttcatctct tgaaatacca gaagacaaa 540
 tgcttacttc ctggtacttt tgtataaaaa acaattacaa aattgtgaag gttactatca 600
 tttttcatca gcaccataaa atcagtaaca aagataagac attattcaga tctactataa 660
 aaaactacat tgga 674

<210> 76
 <211> 523
 <212> DNA
 <213> Homo sapiens

<400> 76
 aaacattttc aagcccctat ctagttaggg ctatcaatta aaagtattta tagggaatgt 60

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tcccctcacc cttgtcacta ggatcagagt tctgttacia atatggaagg agaagttaga 180
tcaactgtctg ctctattatt atcatccaaa tgtctacaga tgaggaaact gagggccaga 240
gtgggtctaaa ccaaggggcat atgggttaata ggaggttagag ctgagccttg aagtcaggtc 300
tgcttgtcct aaagcctgta ctttagccac tatattatcc tattgcatgc tctataccac 360
ctttctctgt ctctgtctct gtatttctat ctgtctctct caagaagtat ttttttgc 420
aataattaaa taatgtggat tttttgttgt tgtcattctt cttaaagaac tgtcttgctg 480
ggttcagtta gotctaaccg tggcttctct actccgagag cct 523

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<210> 77
<211> 661
<212> DNA
<213> Homo sapiens

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<400> 77
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ggtagtagaa atatggattt tcttttttgt attttatatg tttcctaaat gttctataaa 180
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caattctgtc ctaggcttta tcaaaatcca tggacatctg atcgaacaa aaattaacag 420
caatctgcaa aagagctatt agggacatta ctcttgtgaa tagatagtca gcactctggg 480
gacagacact gtgttatctt tctcatctta aatttcaact ctgggcttaa cgggtgcttg 540
tgectaccag tgttcaatca ttggattcaa tgttgaatga ctgttaaact ccttgatgtc 600
agagctaatt gctgacaaca ccctacaggg tttgctatga gatgtatata aattgcaatc 660
t 661

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<210> 78
<211> 722
<212> DNA
<213> Homo sapiens

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<400> 78
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gatgtacgct ggtctgtgtc atctcatctt ctccattatt cttcagcctt ctggetgggg 180

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gcttggaatt ttcacctcct atgaaacaag tgtctgagaa ttcattgagaa gagactgccca 240
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 catgcctgca gtcaaattat tcatattata gaggaacac aacagcaatt ttgtgactga 360
 aaaagattgc ttagatcacg ccttggcaaa accataaaca agaattagga acaaacaaaa 420
 aacaaaacaa aacaaacaca gtgcgcttta tagccctcag gatgttcagc tgggtggtggc 480
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 cattctaaag cttgtctgag gaaaagtact taaattggat acctatgttg tccaaggggt 660
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 gg 722

<210> 79
 <211> 776
 <212> DNA
 <213> Homo sapiens

<400> 79
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 cctgatgtta ttattcatac cacaatgttt cactttgaat gaagttcaat ttatcttttt 240
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 actcctaagt cttctaagag tgttatagtt ttatcttctt acatttgggt tcaattttat 360
 tgttttgtca atttaacacg tataagccaa tacattaatt ctaagccaat gaatacatgt 420
 tcattagaga aaaatcagaa aatatgtaca tgaaaaaaaa taaaacaaaa tacattcata 480
 attctattta ttcaaaaaca actacttcta gcctgctggg ttatgcttcc aaaccctatt 540
 ttctgtgaat gtatttctaat ttttgtgtat atatgtatag gtatgcatgt atacatttta 600
 gtgggattac ataatgcaca tagttgtgta gacaggtttt tttctttgat atattgtaaa 660
 catatttgca gatcagtttt ttggacttgg cttttctgaa cttcaagtgt ttcagctgca 720
 taagagcaag tacttgtgga caatcaaatg aaataatgtt ataaatgcac tttgta 776

<210> 80
 <211> 642
 <212> DNA
 <213> Homo sapiens

<400> 80
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 aattaggtct tcctctaact tttctgtgtt gttattcaaa tttattatct tctaaattca 180
 tatctatgct attccccctt tctatcctac agcatttgca tattctgctc tttgctcttc 240
 tcaacacaaa agtacatagt gatttctttc tcattctatc tgtgctctgt ttctgattag 300
 ctctttgagt agggcccttt ctgactatca atattttttc aatatcttct cactattttac 360
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 gtagaacctt tttgatatta tatattttta atacagtgt tttttcaaga gcatggaaga 480
 aaaaagtaag cttaattcaa gttgttaata ttcaatcacc caacaaatgt ttattaagca 540
 ctgattacat acccagcact cctgtaggat ctagacatgt gagaaatgaa taagcaatca 600
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<210> 81
 <211> 657
 <212> DNA
 <213> Homo sapiens

<400> 81
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 actcgcttaa tttctcctga ctataaaatag cccttgacca ctttcaactt tcccactgat 180
 aactctataa catagggcaa gttacttgac ctactgagc ctattttgcc atctataaat 240
 cagctaatag gacctaaact atagggttgc tgagaggtat aagtaagaca atagagtcta 300
 gcatatggtg gggctcaaca aatattagta cattacttac actttttttt tcaccctgct 360
 atgcctttca gtttatttct actaaactct aagttattaa aatacaggct gaagtattat 420
 taatttcctt ctgtgttctc cccggttcct atcacagtgc caggacaca caggcccat 480
 aatccttcat ggtcaattga actgacagtg aactatgtct tcgtccattt gggatgtac 540
 aacaaaatac catagaccgg gtgacttata aaccacagaa atgtgtttct tatcgttctg 600
 gaggctggga agtccaagat cacggcattg tcagattcag tgtctggtga aggcctg 657

<210> 82
 <211> 625
 <212> DNA
 <213> Homo sapiens

<400> 82
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 ggatgcaaaa ttgactgatg atcttctccc ttccccgtct tgaccctgca tacacaccgc 180
 ctctcgtaga agtgccaagg agcagtgaag tgacaaaaag gcagggagta ggagggagag 240
 gaaagaaaaa caaaccaagt gatcaacccc aaatgactga gtgttggtg tttctatta 300
 tttactcctt tgagctttct cagatgtgtt tttctgagaa gactttcatg ttgtcttttc 360
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 gaatgaggtc caggtaggct gccagattct caagacacta aagcacaaca tttccatccc 480
 cattcttttg aaaacaggct tttaaattgt gcatgaagcc atgtcaatga tgaacaaaaa 540
 tgaaagtcac aaagtagtga gtgaaaattc aaaagcagtt catccatcct cggtattttac 600
 atacagcttt aaatatggta gattt 625

<210> 83
 <211> 648
 <212> DNA
 <213> Homo sapiens

<400> 83
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 aacacagggg agaacagagt caagtccgga ggtcagttca gtcacaggc agtggagcca 180
 caaggtgggg cagttttccc aggtgtctca tagtggtgta cttgagccag tgacctctaa 240
 agatagagca gagtccaagg aatgacctac aaagagtga ggggacaggc aagagctgat 300
 agctttggac caagaccacg ttccctgttc tgggtccatg atgctccctt cccctgtag 360
 agggcaggtg aggaccatgt ggatcttttt ggaaatacat gtggatgttt gcaaatgcag 420
 aaccgactgg tggaaagggc gaacatgaac agatgatgga agtctggccc tcatggacca 480
 tatgtgtttg gtggatatta gaccaatatt tgggaagaag ccttgagat actttctctc 540
 attagacatt ctactctctg attctgaatt tgactactct atgtacctga tatcagtggg 600
 ttccagagtg aatcagagtg tagaatagta gtttcagga gctgggat 648

<210> 84
 <211> 555
 <212> DNA
 <213> Homo sapiens

<400> 84


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ttcctcatct gctttgcccc gtatgtcatg accaggtggg tcctggcagt ccggctcctg      120
ttgtgggaac agctgggtgg gcttggcctc agttgagtag gcctctgagg tttcccagca      180
agataatctgg agggcggccca ccaccagagg accctcctcc acacctgacg ggctcagggc      240
tgtgcttcag ctcttgggaa agatcctggg agggaggtgg cactggctcc catcctgtcc      300
tataaatgag gagactctcc ttgtccaggc acaggcagat atgggggtctg tgaatcagca      360
cctggctctt taaacctaga aagctttcaa aatcaggcaa cctgggacta actcaggcct      420
cagactccgc atctcctggg cgtggagttg ggaatctggg tggaagctcc agctggagcc      480
tcggggcagt aacactgccca ggtgagtgtt ctctttgctt ctctctttcc tggagacctt      540
ggcctgagtg cttgt                                     555

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<210> 85
<211> 435
<212> DNA
<213> Homo sapiens

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<400> 85
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acattaagct tctgcttggg tgcagaaagg gcatatgtcc tctcattcca ttggccaaag      120
tccaaagtca atgcgtcaga caggatcatc tactcctcct gtagaagcac aggaaagtta      180
tgggaaaatc gcaaaggatg tagaaacaaa ctacagagag tgaatgagga aacacaagca      240
agaaccacagc ctcagaaaact ttgcctaaat acttatgcat tagaattaca tcagctatat      300
gtgtcagaaa gaccaagaga aaatggctta aaacaaaggg agaagtttat gtctccctca      360
cccaaagtga tgggtccatgc tcagtataga ctttcacaac gttcaggact gaagctcttt      420
ctacgctgtt tctca                                     435

```

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<210> 86
<211> 630
<212> PRT
<213> Homo sapiens

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<400> 86

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Cys Ala Thr Ala Ala Thr Thr Thr Cys Ala Ala Ala Thr Cys Cys Cys
20         25         30
Thr Gly Ala Ala Ala Cys Ala Gly Gly Gly Ala Thr Cys Thr Thr Thr
35         40         45

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Gly Gly Cys Thr Ala Cys Thr Thr Thr Cys Thr Ala Thr Thr Ala Ala
 50 55 60
 Ala Gly Gly Ala Thr Ala Gly Ala Ala Cys Ala Ala Ala Gly Cys Ala
 65 70 75 80
 Cys Cys Thr Thr Cys Thr Cys Cys Ala Ala Thr Thr Cys Thr Thr Ala
 85 90 95
 Thr Cys Ala Thr Thr Thr Thr Thr Ala Gly Thr Thr Thr Thr Cys Thr
 100 105 110
 Thr Thr Thr Thr Thr Ala Cys Thr Thr Thr Cys Thr Ala Thr Cys Cys
 115 120 125
 Thr Thr Thr Thr Thr Thr Ala Ala Cys Ala Thr Gly Thr Ala Ala Thr
 130 135 140
 Thr Thr Cys Ala Gly Thr Gly Cys Cys Ala Ala Ala Ala Cys Ala Gly
 145 150 155 160
 Ala Cys Thr Thr Gly Cys Cys Cys Ala Thr Thr Thr Gly Thr Gly Cys
 165 170 175
 Thr Cys Ala Cys Cys Ala Gly Cys Ala Gly Cys Thr Thr Thr Cys Cys
 180 185 190
 Cys Ala Thr Ala Gly Ala Gly Ala Thr Gly Ala Ala Gly Ala Thr Ala
 195 200 205
 Ala Gly Cys Thr Gly Cys Cys Ala Gly Cys Ala Ala Thr Thr Cys Thr
 210 215 220
 Thr Ala Ala Cys Thr Ala Thr Gly Gly Thr Cys Thr Cys Ala Ala Thr
 225 230 235 240
 Gly Gly Gly Cys Cys Ala Thr Cys Ala Thr Thr Ala Gly Ala Gly Gly
 245 250 255
 Cys Ala Ala Cys Ala Cys Gly Thr Gly Cys Ala Thr Gly Cys Thr Gly
 260 265 270
 Ala Ala Gly Ala Gly Thr Ala Thr Thr Thr Gly Thr Thr Ala Ala Cys
 275 280 285
 Cys Thr Thr Thr Ala Ala Cys Thr Thr Gly Ala Ala Thr Thr Gly Ala
 290 295 300
 Cys Ala Ala Gly Cys Ala Ala Gly Cys Cys Cys Thr Thr Ala Ala Cys
 305 310 315 320
 Ala Ala Ala Ala Ala Gly Thr Cys Ala Thr Cys Thr Ala Cys Ala Cys
 325 330 335
 Ala Gly Ala Thr Thr Thr Cys Thr Thr Thr Cys Cys Thr Ala Ala Ala
 340 345 350
 Thr Gly Cys Cys Thr Gly Ala Gly Thr Thr Thr Thr Ala Thr Thr Thr

355					360					365					
Thr	Thr	Ala	Ala	Gly	Ala	Thr	Thr	Thr	Thr	Ala	Ala	Ala	Ala	Gly	Ala
370						375					380				
Ala	Thr	Ala	Gly	Cys	Thr	Cys	Cys	Ala	Cys	Cys	Thr	Ala	Gly	Cys	Cys
385					390					395					400
Cys	Thr	Thr	Cys	Ala	Thr	Thr	Thr	Thr	Gly	Cys	Ala	Thr	Ala	Thr	Thr
				405					410					415	
Thr	Ala	Thr	Thr	Thr	Thr	Ala	Cys	Thr	Thr	Ala	Gly	Ala	Cys	Thr	Gly
				420				425					430		
Cys	Thr	Thr	Thr	Ala	Cys	Thr	Thr	Ala	Cys	Ala	Thr	Cys	Thr	Thr	Thr
				435			440					445			
Cys	Cys	Cys	Cys	Ala	Thr	Thr	Cys	Thr	Ala	Gly	Cys	Thr	Cys	Ala	Gly
				450			455				460				
Ala	Ala	Thr	Thr	Thr	Thr	Thr	Ala	Thr	Gly	Ala	Gly	Gly	Ala	Ala	Ala
465						470				475					480
Ala	Thr	Thr	Thr	Gly	Ala	Gly	Ala	Ala	Thr	Ala	Ala	Cys	Ala	Gly	Cys
				485					490					495	
Cys	Cys	Thr	Ala	Gly	Thr	Thr	Ala	Cys	Cys	Thr	Gly	Thr	Thr	Gly	Gly
				500				505						510	
Ala	Gly	Thr	Gly	Gly	Thr	Cys	Ala	Cys	Cys	Ala	Thr	Gly	Cys	Ala	Thr
				515			520					525			
Thr	Cys	Thr	Thr	Thr	Ala	Thr	Ala	Thr	Gly	Gly	Cys	Ala	Gly	Cys	Thr
						535					540				
Gly	Ala	Thr	Thr	Cys	Ala	Ala	Thr	Cys	Cys	Cys	Thr	Cys	Thr	Thr	Cys
545					550					555					560
Cys	Ala	Cys	Ala	Ala	Cys	Ala	Ala	Gly	Thr	Cys	Thr	Gly	Ala	Thr	Cys
				565					570					575	
Thr	Ala	Gly	Ala	Gly	Ala	Gly	Thr	Cys	Ala	Ala	Ala	Gly	Gly	Ala	Ala
				580				585					590		
Gly	Ala	Ala	Gly	Ala	Ala	Gly	Thr	Thr	Gly	Ala	Gly	Ala	Ala	Cys	Cys
				595			600					605			
Thr	Gly	Cys	Thr	Gly	Gly	Gly	Ala	Ala	Thr	Cys	Thr	Cys	Cys	Thr	Gly
						615					620				
Thr	Thr	Ala	Gly	Cys	Thr										
625						630									

<210> 87
 <211> 357
 <212> DNA
 <213> Homo sapiens
 <400> 87

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a a a c a g t a g c	t c c t g t c c a c	t t c a g t c t t c	t a g t t c c c a g	a g g c a a t t a t	t t t c t t t t g a	120
t t g t t t t c t t	t t g g t a t t t a	t c t c c a t a c c	t c t a a a g c t t	a t a t t g c c a c	t t c t t g a t t t	180
t c c a g t t t t c	a a c a t t g a t t	t t t c a a t t t t	t c c a t g c t g g	a a g a a g a g g a	t t t a a c t a c t	240
t t c t a c t a t c	t t t c c c c g t c	a c t c a a t a t c	a c a c a c a c a c	t c c a t c t c t c	a c c c c c a c c c	300
t c t c a a t a t t	t t c a c t t a a a	t c a a t a a t c a	a t a t t t a c a t	c a t t a t a a t g	t g c c g t g	357

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<210> 88
<211> 679
<212> DNA
<213> Homo sapiens
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<400>	88						
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aatatgtggg	tgtgttgcc	cacatgtgtc	atcgagacac	ccctggccat	ggagcttaga		180
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aattcaagaa	tgaattgaaa	aagccctcac	cctcaggaag	tgtgcactgc	tgtgtagcta		480
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acaggggagaa	ctggtgagtt	cccacaagag	aatggcgtcc	gcccaggaat	gggggagcat		600
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<210> 89
<211> 626
<212> DNA
<213> Homo sapiens
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<400>	89						
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gggtgactccc tattttaaga tgctgtcaac agataattgg tccacaaaat gggcagaaga 540
ggaagggagt agacaaagga ctgaatatgt tatctttatc ccctactaca cccgtggttg 600
aaattgtata aacgaggaat agtaaa 626

<210> 90
<211> 604
<212> DNA
<213> Homo sapiens

<400> 90
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tgttacataa gcgaatgtct tctgctctt tcaacttttt ggtgccctta tgctgcccc 180
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atggacctgt ctctcccagt gtctaacctc tgcacatcat agcctactct ctatccgcac 540
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ctgc 604

<210> 91
<211> 637
<212> DNA
<213> Homo sapiens

<400> 91
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tctgaaagat ggatgtgtgt aaccttgagt cttttagaaa ccttaataaa atgggtttta 180
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tataccactt ttagggcaac tgtttctttt ttactatttc tctattggat ttgggtacaa 540
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<210> 92
 <211> 526
 <212> DNA
 <213> Homo sapiens

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<400> 92
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ctacagcctc aattcccaat cacctatgaa aggagacac tttatggaca ttttcttatg 180
aaatcctctg tacttatgaa ctttcataga tgtgatgttc agtcccattt tacagatgac 240
gtttccaga gtttcagtaa gttgccagc ttctaatttt aaaatactca atgtgtgtgt 300
gtgtgtgtgt ggtttggggg agaatgcagt gctcagagaa ccttaacttt aatgctaaat 360
atgtggcaaa agaatcttga gatattattt ttctcttgat aatttctgtg atttcttttc 420
aactctatcc ccaatcagaa aaggctcttc tgggccaaaa atgaagaggc agatttatgc 480
cagttaaggt gtggatcatg gaagaggacc catgggtatg actagt 526

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<210> 93
 <211> 557
 <212> DNA
 <213> Homo sapiens

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<400> 93
aataagtcta gcaagggaaa tttttttagg tgtttttatt attttttatt ttttattttt 60
ttgctctgga aactgttagt ccaaactgca ccattttgta acccccagc catttcgcag 120
acctcgggtc aagtgaacaa ttccacaggg gttcgggctg tgacaaacag cctgcccac 180
cgcttgactc tcttattata ttctgctgga agaaagtgtg aggaacctca cactgcaactg 240
gaacaggcac caaactgcct aatcatggga acatgttatc aacattttcc caggcagcag 300
gccatgcccc ctgttcaga cccctccac ctgcctata attgcccag cctgtaagtg 360
gcgatggcca ttggcattaa gctgcaggc ttatgctgga cataaagccg gcatttgcgtg 420
taaagccacc actctctctc tttgtgtctt tctttaacce tagccttccc ttcaaaaccc 480

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aacaaaaact atttataaga caatttttct tcatcctcca gtaagaacct aattttttgt 540
 ttgtttgttt tggtttg 557

<210> 94
 <211> 572
 <212> DNA
 <213> Homo sapiens

<400> 94
 ctgctttatc ttgggattcc agtatatcag cagggaattc catgcatcca ctcttgccat 60
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 ggccatgatg tgatatgtac tcagtgcagc tgggtgtttgt cagccacagg ccccgccgct 180
 ccaactaagct tccattcctc ctgttcctcc tgtgttcaag aatgtggagc ctggctccct 240
 ctgggctcca aaaatgcttc aggctgggtc ctgtaaaatc ttaacatttc ctcccacccc 300
 tattccctta gcattgccac ctttttcata aaataattta tacaactgga aaggaagaaa 360
 aaaaatccag tgcaaaaata ccatacgtag aacaacatta tgaaatctcc ttaatgtcct 420
 gaaagctgca ccaggccatt tggaagatgc attagctaga taagtattaa cagaagggcc 480
 tatcacagaa acgttaccac aactaccacc ttttattaag ccccaggag aacttaaaac 540
 cagcccatca ctctgatgtc tgagacgggc ct 572

<210> 95
 <211> 706
 <212> DNA
 <213> Homo sapiens

<400> 95
 cttcaaaatt gtaagcttat ttttatataa accctcctaa agataattgc agaagttcaa 60
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 tatgacagac ttagtagttc taaacaatac aaatttatta tctcagagtt ctttagatca 180
 aaagttcaac ataggctcct gagctaaaat caagggtctg taggcctgtg cttcttactg 240
 aaggttctag ggaagaatcc actttcaggt tcatgcatat tgttggtga attctattcc 300
 atgcagctat agaattttaa tccctgtttt cttgctggct aaaggctga atcatttttt 360
 accttttagag attgtctgct ttccttatct tatggccctt ttatcttcaa agtcagccat 420
 catgattcaa gtccttccat aattcatctc ttctgtcatc tattctgaca tgtcttctct 480
 gccagtcctt cactgactga ctcttcttcc ttcttctatt tgtaaaggcc cacatactaa 540
 tccagaataa tccctctatt ttaaaatcaa cttattagaa ccttaattcc atcttcaaaa 600

ttgtgtttcc atatatacata acatatccac aggcatttgg cacaagaggg tgacaattat 660
 ggcttgtgtt agccataaga taacagcacc taacaggtaa ataacc 706

<210> 96
 <211> 733
 <212> DNA
 <213> Homo sapiens

<400> 96
 atgtgccctg gtgcttccag gaactaggtg gccccccacc cccccgggg ctgggcacct 60
 taccagggg agagaataag ctgtgaagct ggtcctaggg tgcgaggatg gctggccggg 120
 gttgggctgg gaaggagagg ctggccaggc ttcttgctcc tgccccaca cttcagcct 180
 cttccccaac ctttagcca ctgcttacc agcaaaggcc accagggcca cagcgaata 240
 gggagcccag gagagcacga agaggaggat gaccagcagc atgatcttgg ccatcttgca 300
 ctgctctgc agccgctgcc gctgccacag ggactcgcca ttgcccttgc agggcccgaa 360
 ggtctggaga gccctaggaa ggacgcctcg tccaggtctg accctagtcg ggtggcagtc 420
 agcaccaggg tcacggctgc tgttggggag cctctctgga ctatccttgc agggcactcg 480
 tgagagtgtc attccttcca gtgcaggcag ccctgacttc cagaaagttt tctgtgacat 540
 gaggtctcag ctgcccccta ctccctcttg attctgtgtg ccttctctcc tccctctgcc 600
 atgccgaaaa gcccgcccca gaagcccttg tctcctgagg ctccctaga cactgctgcc 660
 ccataagcac ttgctcagct tgccttcacc cactgggtcat gctctggtag gctggtgcaa 720
 gtgtgagtgg tgg 733

<210> 97
 <211> 475
 <212> DNA
 <213> Homo sapiens

<400> 97
 acatcgatc ttttaaaagg ctttttaaag ctgataacaa gttacctttg attgcatata 60
 aaactctata ttttctctcc tctaactcat cttatgtttc tgatgtcaca atttactact 120
 tttatattgc atatgcctta acaaattatt gaatctatta ttatttttaa tagttttgtt 180
 tttcaacctt catactaaag atataagtaa ttgacatata accattacaa tattaagtg 240
 ttctgaattt gactatgcat ttacttttgc ttataagctt tatactctct acgtttatgt 300
 gttagtaatt agcatccttt tctttcaggt tttttccaat ataaagaact ctattagcat 360
 ttcttgtaag acaggatagg tgttactgaa ctctctcagc ttttttttgg gaaaaccttt 420
 atctcttttt ttatttctga aggacagctt tgccatgtac agtattcttt tttgg 475

<210> 98
 <211> 552
 <212> DNA
 <213> Homo sapiens

<400> 98
 atacataacca tgaaatgggt atgggagggga gataagggat ttaagaattg ctccaggttc 60
 ttcagagaga actgagcctc tgttgtcttt actcaagaag ttgatctcta gttagagaat 120
 ggcattcatt catactttca ttcattcagt tattcattcc ttcaacaact tttggaaggt 180
 actttctgtg tgacaaacac atcacaaaca actgtaatat aggctgcaga tacgaaaaca 240
 tatttgctgc catgatgtag aaaaaatcac tgcaaacatt ttaaaagttt ggaaaatata 300
 gctcagattg aatttttgcc ctaagataaa aaaaatcatt gggagataaa agcaatatat 360
 gaacatggag ttaatagatt ttttcccttt taacatagat aacagtacat agtgattcat 420
 ttgtcctctg tcatttggtc ttgaggaaca ctaatgccct aatatgtgta atgttcagta 480
 acaaattgcta aataaaaata caggaataaa aatccattaa gcatgtattt aatactgtgt 540
 aacacttact gt 552

<210> 99
 <211> 514
 <212> DNA
 <213> Homo sapiens

<400> 99
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 tctgcatcag gaggacaccc tgggtgcagg aggaggcttc gctgaaaagc attgcaacag 120
 cattatcaca tacgtggaaa taagaattgc atctcaaccc ttcccttgcc ctccacccat 180
 ctaacatgcc tcagccctcc tgtggccata gtaacctgaa cagtaactac agcagcaggc 240
 tgcttaggtg ccagggtgtaa gaagagaaat ttcattgaaa caggaaaata tagcctgctt 300
 ttctccccag ctctaacctt tcaacctata actactccct actgtaattt ttgtgggatt 360
 tgctgatatt gaaggaagat gattgaaaat ctgcttaaga tttcgtcttt atttcccgt 420
 tgacaggcct agggccccac tgaggaagtg tttctctctg cagagccctc agccacccca 480
 tatgtcccag ggatgtgctc aagtcacgag gacc 514

<210> 100
 <211> 526
 <212> DNA
 <213> Homo sapiens

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<400> 100
caaagacata ccaagtactt ctcattcttc ttgctttgaa agcctatttc ctgaaatgga      60
tttcagagcc cttcaccocct aacttcattt ttccttgagc ctgtatcttt atggtaatag      120
ctacagcctc aattcccaat cacctatgaa aggagacac tttatggaca ttttcttatg      180
aaatcctctg tacttatgaa ctticataga tgtgatgttc agtcccattht tacagatgac      240
gtttcccaga gtttcagtaa gttgccagc ttcctaatttt aaaataactca atgtgtgtgt      300
gtgtgtgtgt ggtttggggg agaatgcagt gctcagagaa ccttaacttt aatgctaaat      360
atgtggcaaa agaatcttga gatattattht ttctcttgat aatttctgtg atttcttttc      420
aactctatcc ccaatcagaa aaggctcttc tgggccaaaa atgaagaggt agatttatgc      480
cagttaaggt gtggatcatg gaagaggacc catgggtatg actagt                        526

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```

<210> 101
<211> 647
<212> DNA
<213> Homo sapiens

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<400> 101
agcacataag gatttttttc catgccccta tgatttcatt tccaaccaat cagcagcatt      60
cactgcctag cctcctaccc atgaaattgt acataaaaac cctgagctca aagcctttgg      120
gaagactgat ttgagtaaaa tgccctgattc tcctgtgtgg ccagtctcgt gtcaattaaa      180
ctctctacta caatgccatg gtgtcaatgc atcttgtctg tgcagtgcgc agaaagaacc      240
cactggcaat tacattacca gtagctatcg ctcttctgtc cttcaaacag gaaatacttc      300
aaccctggta agtcaattag ggtttctcat tcatttgccg agctcctggg ggccctggcct      360
gagactctct ctgcccctcc tgtaactcag tggccctttt cattctcaga aacatttttc      420
ctgaacctgt gtgttccctg cctcaatctg tattggctaa tttctaggcc tgttaaataa      480
ctgtcaatct tgaccccatc ataattacca tctagaaatg ccatttgtct ctcatthttg      540
tcatactctc tgcttcctgg attctgggaa gtttatgctt tgggtgacaa atatccatct      600
gagaaaaaaa atacatgaaa cttctttaaa ttctttactc cataata                        647

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<210> 102
<211> 491
<212> DNA
<213> Homo sapiens

```

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<400> 102
tttattgaaa taacttatag gaaatgactt aagtaatata aaacacatca cacattttat      60
ctgtatgttg aatatcaaaa ttgagattcc tagaaaattc ttattttcaa aagtatatac      120

```

```

ccagattact tgtaagcatt ggaaagacaa tggctaataca ctcacatttt ggaaatgaaa 180
gaaattacct caatcaggac aagttcttag tgtcactcat ttagtggttag atccatgata 240
gagaatgcaa ttctcagacc aaagattatg gttggttcct taactatgcc ttgaataaac 300
taaacaactt cccattttatc agctggagaa cttacaatgt tataggagtg gtcatgggct 360
taagaaaatg ttacagaga ggttatatat tgtattagaa agctgtttat caggccatga 420
atgtgctatc cacagagaaa ctatgttttg tggatatggg aaggaaagga gtaaataagg 480
caaatgcatt g 491

```

```

<210> 103
<211> 604
<212> DNA
<213> Homo sapiens

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<400> 103
acatgttcag tcaattttaa aatgtaacaa aagaaaatga attattatta aattactaac 60
tactttgttt taggcactga gctaagtagt tgcttttggt taaattcctt ttaaaaggtc 120
gcactagcct tgggtctaaat actaagcttc aaagactgaa tgggaatact attgagtaca 180
tgcatctagt tctcagtatc ttcttccttt ctgctccttt agcagggtcca gaccaagcaa 240
gtctgggtggg gaggagcctg ttctagatct ggagagtccc tgcatccaat tccaattggg 300
tactaagttc actattaggg tgacagggtc aatagaaacc caaacgtcag catcacataa 360
tatatccatg taacaaacct gcacatgtgc cctagaatct aaaattaaat aaataaataa 420
ataaataaag cagtggacct gggataggcc atgaatatct actatttttag atgaaggatt 480
aggacagtcc atggatacag tgctttctta aatagaccct caaaattctg catcataaaa 540
tcttgatact caggagcaat ttgaagcact ccatttggtg ctggagtgtt ttgagttgc 600
tttg 604

```

```

<210> 104
<211> 232
<212> DNA
<213> Homo sapiens

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<400> 104
atgatttttg gatttaataa ttaccacgga tcccttcttc cttcttgagt ttttctaagg 60
agtgatagac tggaaacagt aaccatactg aaagtgaat ttctggatcc atgagggttt 120
ggcacaaccc aatggagaaa tctgggaaaa gctgaattgg aaaagtgggtg tgagactggg 180
aggttcgggg taggcttttg ctcttacttc taagtctgag tcgatagggtg tg 232

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<210> 105
 <211> 524
 <212> PRT
 <213> Homo sapiens

<400> 105

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Thr Thr Ala Gly Gly Gly Ala Thr Ala Cys Ala Gly Cys Cys Ala Thr
1      5      10      15
Thr Cys Ala Thr Gly Gly Thr Gly Thr Thr Thr Cys Ala Thr Gly
20      25      30
Ala Ala Cys Thr Thr Ala Thr Cys Cys Cys Thr Thr Ala Thr Gly Ala
35      40      45
Ala Thr Gly Cys Ala Thr Ala Thr Gly Ala Thr Ala Thr Gly Thr Thr
50      55      60
Cys Ala Thr Thr Cys Ala Cys Cys Thr Cys Thr Thr Thr Gly Thr Ala
65      70      75      80
Gly Ala Ala Ala Gly Cys Thr Thr Thr Gly Ala Thr Cys Gly Thr Thr
85      90      95
Thr Thr Gly Cys Ala Cys Ala Ala Ala Cys Ala Gly Gly Gly Ala
100     105     110
Ala Gly Thr Ala Gly Thr Ala Gly Thr Ala Gly Thr Gly Gly Cys Ala
115     120     125
Gly Thr Ala Thr Gly Gly Ala Thr Thr Thr Gly Gly Gly Ala Gly Gly
130     135     140
Gly Thr Gly Ala Ala Gly Thr Thr Ala Gly Cys Thr Thr Thr Gly Gly
145     150     155     160
Cys Cys Ala Gly Gly Thr Gly Ala Thr Cys Thr Cys Thr Gly Cys Ala
165     170     175
Thr Ala Thr Cys Ala Gly Ala Cys Thr Ala Thr Thr Ala Ala Ala Gly
180     185     190
Gly Cys Ala Gly Cys Gly Cys Cys Thr Thr Thr Ala Cys Ala Gly Ala
195     200     205
Ala Thr Gly Thr Thr Gly Gly Cys Thr Gly Gly Gly Cys Thr Gly Thr
210     215     220
Gly Ala Cys Thr Cys Ala Thr Gly Cys Thr Thr Thr Gly Cys Thr Thr
225     230     235     240
Thr Gly Cys Ala Cys Thr Cys Cys Cys Thr Ala Ala Ala Gly Ala Gly
245     250     255
Gly Cys Thr Thr Thr Ala Thr Gly Thr Ala Thr Cys Gly Cys Cys Thr
260     265     270
Cys Thr Thr Thr Gly Thr Cys Cys Thr Thr Thr Cys Cys Cys Ala Ala

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275					280					285						
Gly	Thr	Cys	Ala	Thr	Thr	Thr	Thr	Gly	Ala	Ala	Ala	Ala	Thr	Ala	Ala	Ala
290							295					300				
Thr	Ala	Gly	Ala	Ala	Gly	Ala	Gly	Ala	Gly	Ala	Ala	Ala	Thr	Ala	Ala	Thr
305					310					315						320
Gly	Thr	Gly	Ala	Thr	Cys	Ala	Gly	Gly	Gly	Gly	Cys	Thr	Cys	Thr	Ala	
				325					330					335		
Ala	Thr	Thr	Gly	Thr	Ala	Thr	Thr	Thr	Ala	Thr	Thr	Gly	Cys	Thr	Thr	
			340					345					350			
Ala	Thr	Gly	Thr	Ala	Gly	Gly	Gly	Thr	Thr	Gly	Thr	Ala	Gly	Thr	Ala	
		355					360					365				
Gly	Ala	Thr	Ala	Cys	Ala	Gly	Gly	Gly	Ala	Thr	Gly	Thr	Thr	Thr	Cys	
370					375					380						
Cys	Thr	Thr	Ala	Thr	Thr	Cys	Thr	Thr	Thr	Ala	Thr	Gly	Thr	Cys	Thr	
385					390					395					400	
Thr	Gly	Cys	Ala	Cys	Ala	Thr	Cys	Thr	Gly	Ala	Ala	Ala	Thr	Gly	Thr	
				405					410					415		
Gly	Thr	Cys	Ala	Thr	Ala	Ala	Thr	Ala	Ala	Ala	Thr	Gly	Ala	Thr	Ala	
			420					425					430			
Thr	Thr	Thr	Thr	Ala	Ala	Ala	Ala	Ala	Ala	Cys	Thr	Ala	Ala	Ala	Cys	
			435				440					445				
Ala	Gly	Ala	Ala	Cys	Ala	Ala	Cys	Thr	Ala	Gly	Thr	Thr	Thr	Thr	Gly	
450					455					460						
Gly	Gly	Ala	Ala	Thr	Thr	Thr	Gly	Thr	Cys	Cys	Thr	Ala	Cys	Ala	Thr	
465					470					475					480	
Ala	Gly	Thr	Cys	Ala	Thr	Ala	Thr	Gly	Ala	Cys	Thr	Cys	Ala	Thr	Cys	
				485					490					495		
Thr	Gly	Cys	Ala	Thr	Ala	Gly	Ala	Thr	Cys	Cys	Thr	Ala	Ala	Thr	Ala	
			500				505					510				
Thr	Gly	Ala	Thr	Cys	Ala	Thr	Ala	Gly	Cys	Thr	Thr					
			515				520									

<210> 106

<211> 346

<212> DNA

<213> Homo sapiens

<400> 106

tcttccttg ttttatctta tatcaaactc tataaggaat aggatcacac agctcctaatt 60

aaggaggagc ataaggtaaa atcatgcaca gcatttttagt tagaaaatat taatctttat 120

gttttcattt cttagtcttt taaataataa aaatgcatcg aaatgtttta aacttttaaat 180

attgtaaaaag ttatagtaag acacgttgcc aactagattc atgcatctaa tttcctgaat 240
 tatagttaat agtttcatat tataaactct tgataaaaagt aataaataca tggcagatac 300
 acacatgcac atttgtatta tataatagta gtccagtga cgttc 346

<210> 107
 <211> 578
 <212> DNA
 <213> Homo sapiens

<400> 107
 ctcacatatt accttcaaag aaacctgtcc taataaaagc cattcctact ctacttggcc 60
 tccaggattt aaccacttcc tacattcaac catcctggga cctagcttta ctagacttca 120
 attttgacct tatttatctt gccttttgtc ataattgctt ctgtcttctg tgctccatta 180
 aacactaagg tttttgagag caggaactca aaacacttta aattcctctc ttttcatatg 240
 cagttgcttt tgcacagtca atacacagta aatgctgatt gaattgaaag gatctcactc 300
 ttagaatgca attctctcag agtctccaac tagtctagta gcttaaagac caatcctact 360
 taaaaattaa ctgaattgt aagtacaaca aaatcactcc aagttattaa cctaaccatt 420
 gaagtgttta ttttctact tggaaaacca ggtcaaccac agggaccaac ctaccctgga 480
 taggtgactc taaaagtaat gaggtaat ttttcaaaaa tgacaaaagct ttcaggattc 540
 tctggaatgc ataccatta atgtgtcacc attaatca 578

<210> 108
 <211> 692
 <212> DNA
 <213> Homo sapiens

<400> 108
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 tgaattcatt tttggaatac agtaggatta ccaggtttgt gtcataatt taaagtgaga 120
 ccagtcaaca gtgttgcaat ttccttatag ccatttcagc tactcaagcc catgtgtgga 180
 ataaacagac agtctgattc aactagggac ggagtttgcc cgagggcata accactaaac 240
 agaagaaaaa aggagaaagg gaggggtgac tgcactcaaa aaatacaata agtaggtatt 300
 tacctggctt acgttctaaa agctgctgta aatgaaacac tgcttgttca tagtcttgtt 360
 ttctgaacat gagatcagcc atcatctata aagataaaaag ttggttctaa aaatattgcc 420
 atgtatttta cacaacatgt tcttccaatc aagatttagc actagaaaaa tatagatgat 480
 aaacatgagg agggggcagc attttataaa aaggaggcat ttaagattca agcccacctt 540
 gtgcagaata acttgcagat cagtgtaca gaagataatc aaggatgtga aacagattgc 600

tctgcttgca aaattgtatt tttagcaaaa aatatgtttc tagcaattgt tttaaaaaca 660
gaaatttgaa ggaattgcac actctatgtg ct 692

<210> 109
<211> 674
<212> DNA
<213> Homo sapiens

<400> 109
actttgtcct atgcatcttt tcccttggtt aatctgtgtc tgtatcctct ccctgtaata 60
aactgtaatc gcaagtgagc tgctttcagt gagttttttg agtggtccta gtaaattatc 120
aaacctgaag gggatttgagg gaactccttg aatttgcaat tgggtgttagg agtgaagaca 180
atcttgtgtg taccgtgttc tctctaactt tatgggggtt aggcattggtg ggtggtagag 240
aatgaagtag gtgtgtaaaa ttaactgtga tctgattctt acctaaaaaa aaactttccc 300
catagcaggg ctgatataaa gaagccacaa cttagggtttt tcctactttg cacacaaaat 360
tccaacagtg gaacttctga atgatttact taggaaatta catatggaga aatgttttga 420
aactacaaat tctcaccaaa gatttcctaa aatactccaa taagggtgata gactgtaatc 480
agaactcaca tttaccacaaa aggagatggt attctatttt gaaagtaatt atattactgg 540
gaaaacaatg tttaccagtt ttaattataa tactggaaac aacagttttt ataaatgttt 600
ctgaatgaat ttacaattta aatgaataaa tccttatgcc taaaatgaac actgggcaca 660
ttttaagca ctac 674

<210> 110
<211> 579
<212> DNA
<213> Homo sapiens

<400> 110
tatacttaag attatttctt tggacactgt tctgttatag taatgtgtct gatcctacag 60
aagtaccata gtattttaat cattataatt tccaatataa gttatacgtg atagatcaag 120
ttctttataa ttttttcttc ttcagagttt tatctggaat ttattctggt gtttgatatg 180
acataaatat ctaatttgtc tcccaaacag agtcaagatg attcctgtaa tgttactaat 240
ttgtgttctg agaaggaaga aaagtggcag cactatggca ctgggaattc tgcataaacc 300
catgaaagca gtcacctttg tgaacgtgtt tttgggtggaa acaagtgttg agaaccattg 360
ttgtataata gtgctgtcca gtagaactta ctctggtgat gggaatactc tatagctgta 420
ctttccaata tggatttcac tgaccacatg tggctatcaa gtacttgaaa tgtggctagg 480

tgactgagga accgaaattt ttagtcttat ttaattgtaa tcagtttaaa tttatacaac 540

tgcatatattt attgaataga gcactttcta gagcatagc 579

<210> 111
 <211> 199
 <212> PRT
 <213> Homo sapiens

<400> 111

Gln Ile Pro Ser Phe Ser Pro Leu Thr Asn Glu Leu Leu Leu Phe Pro
 1 5 10 15

Trp Thr Gly Tyr Glu Ile Arg Gln Phe Asn Pro Leu Ile Tyr Asp Asn
 20 25 30

Gly Arg Asp Val Ala Glu Asn Pro Glu Leu Ser Val Leu Leu Ile Lys
 35 40 45

Thr Thr Leu Val Met Val Thr Lys Gly Lys Tyr Ile Pro Leu Met Ser
 50 55 60

Arg Phe Thr Leu Ser Leu Thr Met Thr Gln Leu Cys Gly Ala Glu Ser
 65 70 75 80

Asn Thr Ala Ser Leu Ile Leu Leu Gln His Lys Ile Tyr Ser Glu Ser
 85 90 95

Asp Lys Trp Ile Asn Leu His Met Asp Glu His Asp Leu Leu Leu Ser
 100 105 110

Lys Val Pro Lys Asp Thr Glu Lys Asn Leu Val Met Leu Leu Asp Asp
 115 120 125

Val Phe Asp Asn Thr Ile Gln Tyr Leu Ser Met Tyr Pro Tyr Asp Ile
 130 135 140

Glu Lys Gly Phe Ser Lys Tyr Phe Asn Leu Asn Arg Phe Thr Lys Arg
 145 150 155 160

Asn His Leu Pro Thr Thr Val Pro Cys Leu Trp Ser Ile Arg Val Ile
 165 170 175

Ile Leu Phe Ser Leu Tyr Tyr Lys Arg Glu Cys Thr Leu Phe Lys Ile
 180 185 190

Asn Asn Ile Asp Tyr Ile Ser
 195

<210> 112
 <211> 231
 <212> PRT
 <213> Homo sapiens

<400> 112

Glu Leu Lys Thr Glu Asn Val Cys Lys Tyr Val Lys Tyr Val Tyr Lys

1			5					10					15				
Asn	Met	Tyr	Phe 20	Ser	Tyr	Phe	Lys	Ser 25	Phe	Ile	Leu	Tyr	Ile 30	Thr	His		
Thr	His	Thr 35	His	Thr	His	Thr	Met 40	Arg	Ser	Leu	Leu	Thr 45	Thr	Gln	Tyr		
Lys	Ile 50	Ile	Phe	Leu	Arg	Asn 55	Ile	Val	Phe	Lys	Tyr 60	Cys	Phe	Ile	Pro		
Tyr 65	Lys	Ser	Asn	Leu	Trp 70	Leu	Phe	Tyr	Gly	Phe 75	His	Gln	Ala	Met	Ser 80		
Leu	Thr	Asn	Phe	Ala 85	Asn	Lys	Gly	Thr	Gln 90	Gly	Met	Lys	Tyr	Leu 95	Leu		
Thr	Asn	Lys	Lys 100	Pro	Ser	Asn	Ser	Met 105	Tyr	Val	Ile	Gly	Lys 110	Ile	Lys		
Ser	Ser	Val 115	Asn	Ser	Ile	His	Glu 120	Leu	Thr	Ser	Ile	Ser 125	Ala	Leu	Leu		
Ser	Leu 130	Lys	Ile	Ser	Asn	Ser 135	Leu	Lys	Ile	Ile	Arg 140	Thr	His	Leu	Asn		
Val 145	Ser	Ser	Thr	Trp	Ile 150	Gly	Cys	Leu	Phe	Ser 155	Ile	Arg	Thr	Glu	Arg 160		
Tyr	Leu	Leu	Asp	Ile 165	Phe	Tyr	Thr	His	Lys 170	Arg	Phe	Lys	Lys	Leu 175	Ile		
Asn	Arg	Ser	Arg 180	Leu	His	Val	Asn 185	Ser	Leu	Ser	Asp	Ser 190	Ser	Glu	Leu		
Ser	Ile	Ala 195	Lys	Arg	Leu	Ser	Asn 200	Arg	Arg	Asp	His	Ala 205	Leu	Ser	Phe		
Leu	Arg 210	Gly	Pro	Cys	Cys	Ile 215	Thr	Val	Leu	Gln	Phe 220	Leu	Gln	Arg	Arg		
Thr 225	Leu	Lys	Lys	Thr	Thr 230	Leu											

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<210> 113
<211> 211
<212> PRT
<213> Homo sapiens
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<400> 113

Trp	Phe	Val	Ile	Ile	Val	Gly	Cys	Phe	Ile	Ile	Thr	Phe	Tyr	Asn	Leu
1				5					10					15	
Tyr	Ser	Phe	Ser	Ile	Thr	Tyr	Val	Ala	Ile	Ser	Met	Ser	Leu	Tyr	Leu
			20					25					30		
His	Gln	Tyr	Leu	Leu	Ile	Tyr	Ile	Glu	Ile	Lys	Phe	Ser	Leu	Gln	Arg
		35					40					45			

Ser Arg Arg His Pro Leu Ile Ser His Ile Asp Tyr Trp Leu Leu Thr
 50 55 60
 Ser Asn Leu Ser Pro Cys Tyr Val Ala Pro Arg Glu Met Tyr Thr Leu
 65 70 75 80
 Leu Ser Gln Val Ile Leu Ile Cys Thr Glu Ser Leu Thr Ser Leu Lys
 85 90 95
 Leu Leu Val Val Ser His Tyr Leu Thr Lys Phe Lys Pro Tyr Asp Val
 100 105 110
 Gln Thr Leu Ser Trp Leu Phe Phe Ile Phe Pro Ile Leu Leu Tyr Ser
 115 120 125
 Phe Tyr Leu Ser Gln Thr Ala Ala Ile Ser Asp Phe Leu Gln Phe Cys
 130 135 140
 Lys Ser Thr Lys Trp Leu Cys Arg Ser Asn Tyr Val Phe Thr Tyr Leu
 145 150 155 160
 His Leu His Arg Met Leu Phe Leu Ile Leu Cys Phe Ser Gly Glu Asp
 165 170 175
 Leu Ile Leu Phe Glu Gly Asn Ala Leu His Lys Asn Ser Ser Phe Ser
 180 185 190
 Pro Gln Asn Glu Val Leu Thr Phe Ile Phe Trp Val Leu Thr Leu Asn
 195 200 205
 Val His Thr
 210

<210> 114
 <211> 159
 <212> PRT
 <213> Homo sapiens

<400> 114

Ser Arg Tyr Thr Thr Leu Leu Met Lys Ser Ser Tyr Arg Ser Glu Lys
 1 5 10 15
 His Phe Phe Pro Thr Asn Leu Ile Leu Glu Leu Asn Thr Leu His Gln
 20 25 30
 Val Asp His Lys Leu His Leu Ile Asn Ala Gln Cys Leu Thr Met Ser
 35 40 45
 Trp Ile Val Ser Gln Gly Gln Val Lys Ala Cys Thr Arg Gly Glu Val
 50 55 60
 Arg Glu His Thr Ala Phe Tyr Lys Ser Thr Ile Val Pro Ile Leu Gln
 65 70 75 80
 Trp Leu Leu His Ile Leu Leu Thr Phe Leu Phe Ser Phe Phe Cys Trp
 85 90 95

Phe Ala Leu Asn Pro Pro Leu Ser Lys Asp Ile Arg Met Tyr His Leu
100 105 110

His Ser Leu Cys Gln Asn Cys Lys Met Pro Phe Ile Phe Leu Asp Met
115 120 125

Ser Gln Ile Ala Lys Lys Met Lys Ile Leu His Phe Leu Phe Ile Leu
130 135 140

Ser Pro Gln Thr Ser Ser Thr Cys Phe Ala Val Leu Arg Gly Glu
145 150 155

<210> 115

<211> 205

<212> PRT

<213> Homo sapiens

<400> 115

Ile Asn Val Ala Asn Asn Lys Asn Leu Phe Cys Ser Ser Ser Gly Gly
1 5 10 15

Lys Ser Lys Glu Asn Gln Gly Val Ser Arg Met Glu Ala Leu Glu Ser
20 25 30

Arg Glu Glu Phe Phe Ile Phe Ser Leu Leu Leu Val Ala Pro Ser Asn
35 40 45

Leu Gly Ile Pro Trp Phe Val Ala Ala Ser Leu Gln Phe Leu Pro Ser
50 55 60

Ser Phe His Glu Leu Ile Ser Cys Val Cys Leu Cys Ile Ser Ser Leu
65 70 75 80

Phe Met Gly Cys Gln Leu Leu Asp Leu Arg Pro Thr Leu Thr Gln Tyr
85 90 95

Glu Leu Ile Leu Thr Leu His Leu Gln Arg Pro Tyr Leu Gln Ile Arg
100 105 110

Ser Pro Ser Glu Val Leu Gly Arg His Thr Phe Trp Gly Asp Thr Ile
115 120 125

Gln Leu Ile Thr Pro Gln Pro Pro Lys Leu Glu Arg Ala Asn Thr Glu
130 135 140

Asn His Arg Leu Gln Gly Ala Glu Ala Ser Lys Cys Asn Thr Lys His
145 150 155 160

Leu Asn Asn Asn His Ile Ala Gly Gly Trp Ser Val Asp Leu Glu Thr
165 170 175

Lys Leu Leu Arg Ala Thr Cys Gly Glu Asp Thr His Phe His Lys Phe
180 185 190

Tyr Leu Glu Pro His Gln Val Leu Met Ile Lys Cys Glu
195 200 205

<210> 116

<211> 216
 <212> PRT
 <213> Homo sapiens

<400> 116

Lys Thr Gly Ile Val Leu Asn Ile Phe Ile Leu Leu Leu Val Glu Trp
 1 5 10 15
 Met Val Ile Lys Leu Gly Gly Thr Lys Arg Lys Ser Leu Gly Ile Gln
 20 25 30
 Asp Leu Gln Thr Phe Phe Ser Thr Pro Glu Gln His Leu Leu Leu Leu
 35 40 45
 Cys Cys Tyr Phe Leu Ile Thr Ile Ser Val His Phe Cys Val Ser Gly
 50 55 60
 Leu Ser Glu Thr Leu Ser Ala Leu Arg Ala Gln Val Cys Gly Cys Leu
 65 70 75 80
 Cys Val Cys Val Cys Val Cys Ile Tyr Ile Tyr Ile Phe Met Tyr Val
 85 90 95
 Cys Val Tyr Ser Leu Phe Arg Pro Phe Phe Lys Leu Phe Ala Val Leu
 100 105 110
 His Leu Arg Ile Tyr Thr Val Phe Tyr Leu Ser Phe Leu Asn Val Tyr
 115 120 125
 Arg Tyr Lys Thr Glu Tyr Phe Gln Glu Trp Lys Ser Ile Phe Arg Tyr
 130 135 140
 Ile Ser Gln Tyr His Ala Val Glu Cys Ser Asn Leu Leu Gln Phe Thr
 145 150 155 160
 Ser Ile Asn Leu Val Gly Asn Cys Gly Lys Val Trp Val Ser Thr Arg
 165 170 175
 Lys Gln Ile Gln Ala Leu Glu Ile Leu Ile Pro Phe Leu Gly Phe Pro
 180 185 190
 Phe Gly Leu Leu His Cys Tyr Pro Phe Cys Lys Thr Ser Thr Pro Phe
 195 200 205
 Val Ser Ile Cys Ser Thr Asn Ala
 210 215

<210> 117
 <211> 237
 <212> PRT
 <213> Homo sapiens

<400> 117

Tyr Phe Leu Pro Ala Phe Ile Ser Gly Glu Leu Met Thr Asn Val Lys
 1 5 10 15
 Asn Glu Glu Leu Arg Leu Lys Ile Leu Glu Thr Arg Tyr Ala Pro Lys

20 25 30
 Gln Val Thr Val Met Leu Leu Ser Ile Ala Ile Ile Ser Ala Leu Leu
 35 40 45
 Trp Leu Pro Glu Trp Val Ala Trp Leu Trp Val Trp His Leu Lys Ala
 50 55 60
 Ala Gly Pro Ala Pro Pro Gln Gly Phe Ile Ala Leu Ser Gln Val Leu
 65 70 75 80
 Met Phe Ser Ile Ser Ser Ala Asn Pro Leu Ile Phe Leu Val Met Ser
 85 90 95
 Glu Glu Phe Arg Glu Gly Leu Lys Gly Val Trp Lys Trp Met Ile Thr
 100 105 110
 Lys Lys Pro Pro Thr Val Ser Glu Ser Gln Glu Thr Pro Ala Gly Asn
 115 120 125
 Ser Glu Gly Leu Pro Asp Lys Val Pro Ser Pro Glu Ser Pro Ala Ser
 130 135 140
 Ile Pro Glu Lys Glu Lys Pro Ser Ser Pro Ser Ser Gly Lys Gly Lys
 145 150 155 160
 Thr Glu Lys Ala Glu Ile Pro Ile Leu Pro Asp Val Glu Gln Phe Trp
 165 170 175
 His Glu Arg Asp Thr Val Pro Ser Val Gln Asp Asn Asp Pro Ile Pro
 180 185 190
 Trp Glu His Glu Asp Gln Glu Thr Gly Glu Gly Val Lys Ile Val Ser
 195 200 205
 Lys Gln Asn Lys Leu Leu Leu Tyr Leu Leu Val Leu Leu Leu Ile Asn
 210 215 220
 Ile Ala Asp Phe Thr Asn Tyr Asn Tyr Tyr His Glu Leu
 225 230 235
 <210> 118
 <211> 216
 <212> PRT
 <213> Homo sapiens
 <400> 118
 Leu Leu Pro Tyr Pro Gly Val His Leu Phe Ala Glu Pro Leu Leu Leu
 1 5 10 15
 Gly Leu Ser Pro Cys Ser Ser Leu Trp Ser Phe Ser Asn Arg Gly Arg
 20 25 30
 Met Ala Ala Asp Pro Leu Pro Pro Ala Arg Arg Arg Asn Arg Arg Gly
 35 40 45
 Val Lys Val Pro Asp Gln Ile Gly His Pro Arg Pro Gln Gln Ala Gln
 50 55 60

Gln Cys Thr Ser Val Gln Ala Ala Pro Phe Ala Gly Val Thr Met Pro
 65 70 75 80
 Ser Pro Thr Gly Cys Leu Cys Phe Tyr Gly Asp Phe Cys Thr Leu Ile
 85 90 95
 Leu Thr Arg Cys Thr Asn Gly Val Gly Met Gly Leu Trp Gln Lys Ala
 100 105 110
 Val Ala Ser Val Ile Phe Ala Ser Pro Arg Phe Gln Leu Ser Thr Arg
 115 120 125
 Pro Leu Val Ala His Phe Leu Leu Ile Thr Phe Val Pro Val Asp Pro
 130 135 140
 Asp Tyr Ser Leu Cys Ser Ala Ala Leu Gly Gly Leu Ser Leu Val Ala
 145 150 155 160
 Ser Arg Pro Leu Leu Trp Ser Lys Ser Pro Ala Lys Leu Asn Ser Ser
 165 170 175
 Val Val Gln Asn Arg Phe His Leu Gln Glu Lys Asn Lys Met Thr Gln
 180 185 190
 Ile Val Thr His Pro Asn His Thr Val Gln Arg Val Lys Val Asp Ile
 195 200 205
 Ala Ala Ala Ser Arg Leu Asp Ile
 210 215

<210> 119
 <211> 208
 <212> PRT
 <213> Homo sapiens

<400> 119

Glu Ser Val His Gly Arg Pro Tyr Val Pro Gly Thr Gly Tyr Val Leu
 1 5 10 15
 Gly Lys His Leu His Lys Ala Gln Asn Cys Leu Ser His Ser Lys His
 20 25 30
 Glu Phe Trp Gly Arg Gly Asn Arg Asp Asn Lys Val Ile Thr Met Glu
 35 40 45
 Ser Leu Leu Arg Lys Arg Thr Asp Trp Ala Ser Ala Phe Ile His Ser
 50 55 60
 Phe Ile Cys Ser Gln Thr Cys Ile Glu His Leu Glu Trp Ser Pro Val
 65 70 75 80
 Cys Ile Leu Val Arg Leu Asp Gly Ser Arg Asp Phe Leu Pro Leu Arg
 85 90 95
 Ser Leu Gln Asn Pro Gly Arg Glu Ile Phe Pro His Ile Val Thr Val
 100 105 110

Cys Pro Pro Gly Glu Leu Leu Thr Trp Gly Lys Glu Pro Gly Lys Met
 115 120 125

Cys Leu Ser Cys Ala Cys Leu Asp Val Thr Ser Ser Val Arg Ser Gln
 130 135 140

Glu Lys Val Ala Arg Cys Arg Arg Gln Val Ala Arg Ile Leu Leu Phe
 145 150 155 160

Glu Pro Ser Val Met Arg Arg Gln Met Cys Asp Val His Phe Leu Cys
 165 170 175

Leu Phe Leu Phe Phe Phe Asn Lys Asn Val Val Phe Asp Cys Arg Asn
 180 185 190

Lys Ala Ser Ile Ile Lys Phe Ala Cys Met Leu Asn Glu Ser Met Cys
 195 200 205

<210> 120

<211> 179

<212> PRT

<213> Homo sapiens

<400> 120

Thr Gly Pro Thr Pro Asp Gly Pro Pro Ala Pro Val Ala Val Ser Met
 1 5 10 15

Leu Ser Thr Ser Pro Cys Ala Ser Ile Leu Gly Leu Cys Leu Cys Ser
 20 25 30

Gln His Arg Cys Val Leu Ser Thr Ala Glu Ile Arg Thr Phe Thr Ile
 35 40 45

Pro Pro Ala Ala Ser Gly Ala Pro Leu Cys Ser Gly His Leu Thr Leu
 50 55 60

Leu Gly Pro Pro His His Cys Thr His His Thr Pro Asn Ser Pro Ala
 65 70 75 80

Pro Pro Pro Gly Arg Gly Ser Val Pro Glu Ser Tyr Asp Leu Gly Thr
 85 90 95

Pro Ser Pro Ser Leu Gly Trp Leu Leu Leu Leu Pro Gly Leu Val Leu
 100 105 110

Gly Ser Thr Thr Tyr Glu Ser Ala Arg Leu Ser Ala Val Ser Thr Cys
 115 120 125

Val Ser Val Ser Gly Gly Gly Gly Arg Cys Leu Ser His Ile Pro
 130 135 140

Ser Thr Ser His Pro Ser His Ser Ala Ala Thr Ala Gln Ile Gly Leu
 145 150 155 160

Leu Val Glu Arg Met Gly Lys Cys Leu Thr His Pro Gly Pro Leu Arg
 165 170 175

Val Ala Asn

<210> 121
 <211> 233
 <212> PRT
 <213> Homo sapiens

<400> 121

Lys Ser His Thr Ala Leu Leu Pro Tyr Ser His Val Arg Ser Lys Leu
 1 5 10 15
 Ile Arg Ser Ala Leu Arg Gly Asn Ala Pro Pro Thr Glu Arg Asn Ile
 20 25 30
 Lys Tyr Phe Val Asp Ile Phe Leu Thr Pro Pro Pro Val Ser Tyr Gln
 35 40 45
 Ile Asn Ser Ser Lys Cys Leu Asn Thr His Lys Thr Arg His Phe Leu
 50 55 60
 Tyr Ala Ser Val Val Phe Leu His Leu Lys Cys Ile Met Ser Ile Lys
 65 70 75 80
 Asn Leu Tyr Glu Val Ala Tyr Ile Glu Ser Val Tyr Ile Gln Cys Gln
 85 90 95
 Ser Ser Val Ser Ser Ile Ser Phe Arg Ser Arg Lys Lys Thr Val Pro
 100 105 110
 Asp Ile Tyr Ile Cys Asn Leu Ala Val Ala Asp Leu Val His Ile Val
 115 120 125
 Gly Met Pro Phe Leu Ile His Gln Trp Ala Arg Gly Gly Glu Trp Val
 130 135 140
 Phe Gly Gly Pro Leu Cys Thr Ile Ile Thr Ser Leu Asp Thr Cys Asn
 145 150 155 160
 Gln Phe Ala Cys Ser Ala Ile Met Thr Val Met Ser Val Asp Arg Val
 165 170 175
 Lys Asp Phe Glu Ile Ser Tyr Asn Ser Glu Val Pro Val Leu Pro Gln
 180 185 190
 Ala His Ser Asn Ser Asn Thr Ser Phe Gly Leu Gln Gln Arg Phe Ser
 195 200 205
 Ser Phe Val Ser Leu Asn Leu Leu Lys Asn Ile Leu Phe Asn Phe Thr
 210 215 220
 Glu Glu Tyr Phe Trp Lys Thr Asn Thr
 225 230

<210> 122
 <211> 223
 <212> PRT
 <213> Homo sapiens

<400> 122

Leu Thr Glu Gly Leu Glu Tyr Ile Ser Lys Tyr Arg Tyr Lys Asn Lys
 1 5 10 15
 Phe Leu Leu Leu Gly Ile Tyr His Asn Gly Phe Gln Leu Ser His Leu
 20 25 30
 Ile Ile Arg Asn Lys Ser Ser His Leu Gly Ala Ile Ile Ser Leu Tyr
 35 40 45
 Ile Thr Glu Val Trp Asn Arg Thr Gln Ser Leu Pro Asp Phe Leu Ile
 50 55 60
 Leu Ser Leu Met Gln Thr Gln Thr Val Asn Met Tyr Leu Pro Ser Ala
 65 70 75 80
 Lys Leu Pro Asn Ser Trp Leu Val Ser Gly Lys Arg Gln Ser Cys Phe
 85 90 95
 Ser Phe Cys Leu Ser Tyr Asn Leu Glu Thr Leu Lys Lys Leu Ser Ala
 100 105 110
 Tyr Pro Val Ser Arg Ile Leu Gln Asn Leu Gln Gly Asn Thr Leu Thr
 115 120 125
 Glu Leu Phe Leu Leu Phe Leu Ile Leu Pro Leu Met Ala Leu Val Val
 130 135 140
 Val Tyr Gly His Val Ala Lys Lys Leu Trp Ile His Asn Ala Val Asp
 145 150 155 160
 Asp Ile Ser Ile His Thr Tyr Ile Trp Gln His Gly Glu Lys Lys Glu
 165 170 175
 Thr Leu Lys Met Leu Met Thr Met Val Leu Val Tyr Thr Ile Ser Trp
 180 185 190
 Leu Pro Leu Asn Leu Tyr Leu Val Leu Pro Cys Arg Glu Phe Ile Ser
 195 200 205
 Ser His Asn Gly Leu Cys Phe Phe Phe His Trp Leu Ala Ile Ser
 210 215 220

<210> 123

<211> 195

<212> PRT

<213> Homo sapiens

<400> 123

Phe Ile Thr Ala Gln Glu Val Glu Thr Ala Pro Ser Arg Ile Lys Ile
 1 5 10 15
 Tyr Tyr Ile Lys Pro Asn Lys Arg Asp Tyr Arg His His Ile Ser Ile
 20 25 30
 Gln Pro Lys Ser Ser Ser Cys Ser Gln Ile Lys Lys Lys Asn Ser Lys
 35 40 45

Cys Leu Thr Met Asp Asp Tyr Ser Arg Arg Ala Val Glu Gly Cys Leu
 50 55 60
 Ser Ser Ser Ala Gln Thr Ser Asp Arg Ala Thr Asn Thr Ala Ser Pro
 65 70 75 80
 Pro Ala Glu Val Glu Val Gln Ala Met Arg Gly Gly Gly Gln Gly Tyr
 85 90 95
 Phe Leu Ala Leu Ser His Pro Thr Leu Met Pro Val Pro Ala Leu Ser
 100 105 110
 Thr Leu Glu Ser Tyr Ala Ile Gln Gly Val Asp Glu Val Phe Asn Gln
 115 120 125
 Glu Lys Ile Leu Pro Cys Pro Pro Ile Glu Glu Ile Glu Asn Glu Ala
 130 135 140
 Ile Val Gly Val Ile Ser Asn Phe Trp Thr Ser Ala Cys Thr Leu Gly
 145 150 155 160
 Val Glu Val Glu Lys Asn Tyr Lys Lys Thr Glu Arg Ser Gly Gly Asp
 165 170 175
 Leu Gly Leu Asp Glu Ile Val Tyr Ile Lys Gly Glu Asn Leu Ile Thr
 180 185 190
 Leu Pro Leu
 195

<210> 124
 <211> 188
 <212> PRT
 <213> Homo sapiens

<400> 124

Phe Met Thr Leu Lys His Leu Ala Asn Leu Ile Ser Asp Leu His Asn
 1 5 10 15
 Leu Val Met Phe Leu Ser Ile Leu Phe Glu Ala Val Phe Ile Ser Gln
 20 25 30
 Arg Leu Leu Lys Leu His Lys Leu Lys Gly Ile Thr Val Phe Ile Leu
 35 40 45
 Leu Ser Arg Tyr Leu Ser Val Tyr Phe Cys Leu Ser Gln Leu Ile Thr
 50 55 60
 Ala Leu Leu His Lys His Tyr Pro Gln Tyr Ile Tyr Ser Tyr Thr Glu
 65 70 75 80
 Arg Gln Lys Lys Ile Thr Ala Val Ile Ala Arg Phe Phe Ile Cys Gln
 85 90 95
 Phe Leu Ser Phe Leu Ile Gly Leu Leu Ala Leu Gly Trp Ser Pro Trp
 100 105 110

Lys Ser Arg Ala Arg Lys Gly Val Ser Gly Ala Ser Cys Phe Ser Gln
 115 120 125
 Gly Ala Gln Ala Leu Arg Ala Ser Ile Ser Ala Phe Asn Thr Asp Phe
 130 135 140
 Pro His Ser Leu Ile Lys Val Leu Leu Glu Phe Leu Met Pro Asn Ser
 145 150 155 160
 Gln Tyr Phe Trp Phe Leu Asn Phe Ile Lys Gly Asn Leu Pro Gly Ala
 165 170 175
 Arg Arg Lys Ile Asp Ser Pro Arg Arg Arg Arg Glu
 180 185

<210> 125
 <211> 172
 <212> PRT
 <213> Homo sapiens

<400> 125

Phe His Tyr Arg Ala Tyr Leu Asn Gly Phe Glu Gly Gln Asn Gln Val
 1 5 10 15
 Met Trp Val Asp Glu Pro Gln Gly Ile Gln Glu Glu Gly Gln Leu His
 20 25 30
 Leu His Leu Leu Val Ile Arg Gln Ser Ser Ile Gln Glu Ser Ser Gly
 35 40 45
 Ser Gln Asn Leu Asn Gly Ser Phe Val Gln Tyr Ala Phe Val Ser Phe
 50 55 60
 Lys Ile Glu Val Ser Lys Val Leu Ala Gly Gln Asn Val Cys Phe Ile
 65 70 75 80
 Leu Tyr Ser Leu Leu Trp Val Val Val Ile His Leu Phe Ile Phe Ala
 85 90 95
 Phe Cys Ser Ser Phe Pro Pro Ser Ile His Leu Ser Ile Tyr Leu Leu
 100 105 110
 Ile Tyr Pro Glu Ile Phe Ile Glu Cys Tyr Leu Cys Ala Gly Ser Tyr
 115 120 125
 Ser Arg Cys Ser Leu Asn Pro Cys Ile Asn Glu Ala Ser Thr Lys Leu
 130 135 140
 His Pro Tyr Ile Ala Met Tyr Ile Asp Met Ser Gly Ile Gln Asn Thr
 145 150 155 160
 Glu Tyr Leu Tyr Lys Leu His Ser Asp Phe Thr Thr
 165 170

<210> 126
 <211> 89
 <212> PRT
 <213> Homo sapiens

<400> 126

Arg Arg Val Cys Gly Glu Arg Gly Ser Gly Trp Pro Arg Gln His Val
 1 5 10 15
 Ser Ser Thr His Arg Leu Trp Asp Asp Asp Pro His Phe Met Tyr Phe
 20 25 30
 Pro Arg Ile Glu Lys Tyr Gly Ile Ile Leu Gln Leu Ile Val Trp Leu
 35 40 45
 Ile Thr Gln Arg Leu Leu Gln Pro Leu Ser Pro His Gln Thr Arg Thr
 50 55 60
 Val Lys Glu Asn Lys Thr Thr Thr Cys His Gly Asn Thr His Leu Tyr
 65 70 75 80
 Thr Tyr Ile Ile Phe Lys Asn Leu Ala
 85

<210> 127

<211> 201

<212> PRT

<213> Homo sapiens

<400> 127

Leu Ser Gly Phe Leu Trp Phe Leu Val Leu Gly Leu Pro Thr Leu Ser
 1 5 10 15
 Lys Cys Ile Gly Leu Tyr Leu Tyr Leu Thr Phe Phe Met Leu Phe Pro
 20 25 30
 Gly Val Val Trp Ile Phe Cys Phe Ile Gln Leu Leu Gln Asn Leu Cys
 35 40 45
 His Gly Asn Ile Gln Arg Leu Phe Arg His Ser Val Arg Ala Ser Thr
 50 55 60
 Asp Lys Pro Ser Gly Tyr Ile Gln Thr Met Lys Pro Thr Val Ser Ser
 65 70 75 80
 Gly Ser Asp Val Ile Leu His Leu Thr Val Leu Leu Phe Asn Arg Val
 85 90 95
 His Leu Leu Lys Leu Ser Leu Tyr Arg Ile Cys Asn Gly Ile Asp Glu
 100 105 110
 Ile Asp Ser Gly Asn Ile Gln Leu Ala Val Lys Ser Val Lys Ser Val
 115 120 125
 Leu Cys Ile Ser Gly Phe Cys Ile Lys Phe Arg Leu Lys Ile Gln Cys
 130 135 140
 Ser Trp Asp Val Lys Pro Ala Tyr Met Glu Gly Gln Leu Phe Ile Tyr
 145 150 155 160
 Met Gly Ser Ala Gly Pro Thr Leu Lys Phe Glu Tyr Val Trp Ile Leu

165 170 175
 Val Ser Met Gly Ile Leu Glu Pro Val Pro Gln Gly Ile Leu Glu Gly
 180 185 190

Gln Leu Tyr Asn Ile Leu Leu Leu Leu
 195 200

<210> 128
 <211> 177
 <212> PRT
 <213> Homo sapiens

<400> 128

Asp Tyr His Ser Tyr Phe Phe Pro Tyr Ile Arg Ala Gln Pro Leu Leu
 1 5 10 15

Cys Leu Gly Leu Pro Val Ile Ile Val Val Val Ser Phe Ile Val Leu
 20 25 30

Thr Phe Ser Ser Ser Ser Phe Ile Leu Pro Leu Pro Ser Val Phe Tyr
 35 40 45

Asp Gln Ile Gln Ser Leu Lys Thr His Arg Ala His Gln Asn Thr Thr
 50 55 60

Leu Gln Pro Asp Ile Gln Ser Cys Pro Val Tyr Arg Ser Asn Phe Phe
 65 70 75 80

Ser Ile Tyr Leu Ser Leu Ser Pro His Leu Leu Leu Ile Asn Thr Trp
 85 90 95

Ile Leu Tyr Ala Gln Glu Ala Lys Leu Phe Thr Val His Phe Arg Cys
 100 105 110

Pro Ser Tyr Phe Pro Phe Ser Ile Leu Leu Thr Met Leu Phe Pro Met
 115 120 125

Leu Gly Met Leu Ser Phe Gln His Leu Ser Thr Thr Asn Phe Ala Lys
 130 135 140

Tyr Arg Pro Pro Gln Asn Pro Ser Phe Ser Leu Gly Leu Pro Gln Gly
 145 150 155 160

Pro Ser Asp Asn Asn Val Pro Ser Pro Ser Phe Cys Ile Ser Cys Ile
 165 170 175

His

<210> 129
 <211> 206
 <212> PRT
 <213> Homo sapiens

<400> 129

Met Thr Phe Ser Gly Tyr Ala Gln Asn Lys His Phe Arg Tyr Phe Leu

1		5		10		15	
Phe	Phe	Glu	Tyr	Lys	Asn	Phe	Leu
		20				25	
Lys	Ser	Leu	Arg	Pro	Asn	Leu	Phe
		35				40	
Leu	Ile	Ser	Leu	Lys	Leu	Cys	Cys
	50				55		60
Ser	Val	Tyr	Asn	Ile	Leu	Ser	Ser
65				70			75
Lys	Gln	Gly	Leu	Gly	Leu	Pro	Phe
			85			90	
Cys	Arg	Gln	His	Arg	Thr	Leu	Ser
		100				105	
Lys	Ala	Ser	His	Ser	Tyr	Leu	Tyr
	115					120	
Thr	Tyr	Gly	Gln	Asn	Lys	Arg	Ser
	130				135		
Tyr	Val	Tyr	Phe	Leu	Tyr	Leu	Tyr
145				150			155
Thr	Val	Asn	Thr	Asp	Asn	Phe	Lys
			165			170	
Glu	Asn	Asp	Met	His	Lys	Tyr	Cys
		180					185
Thr	Ile	Met	Thr	Lys	Ile	Cys	Cys
	195					200	

<210> 130
 <211> 225
 <212> PRT
 <213> Homo sapiens

<400> 130

Ala	Gln	Gln	Val	Arg	Arg	Gln	Pro
1			5				10
Tyr	Gln	Pro	Leu	Ser	Leu	Gln	Gly
		20				25	
Thr	Met	Ala	Gln	Phe	Leu	Ser	Val
		35				40	
Asn	Arg	Thr	Glu	Thr	Pro	Gly	Gln
	50					55	
Glu	Trp	Leu	Val	Gly	Lys	Gln	Val
65				70			75

Ala Phe Cys Gly Leu Val Gly Asn Gly Val Val Cys Trp Leu Phe Cys
85 90 95
Phe Gln Val Arg Ser Ser Pro Tyr Val Thr Tyr Val Leu Asn Leu Ala
100 105 110
Ala Ala Asp Met Val Asn Leu Ser Cys Val Thr Val Ile Leu Leu Glu
115 120 125
Lys Ile Leu Met Leu Tyr His Gln Val Thr Leu Gln Val Ala Met Phe
130 135 140
Leu Glu Pro Val Ser Tyr Phe Ser Asp Thr Val Ser Leu Cys Leu Leu
145 150 155 160
Val Ala Met Asn Ile Glu Ser Phe Leu Cys Val Leu Cys Pro Thr Trp
165 170 175
Cys Cys His Arg Pro Lys His Thr Ser Ala Val Met Ser Ile Leu Ser
180 185 190
Trp Ala Leu Ala Leu Ser Phe Ala Cys Gly Pro Gly Leu Val Met Gly
195 200 205
Glu Gly Pro Gly Met Pro Ile Ser Gly Arg Leu Tyr Asn Ile Ser His
210 215 220

Ala
225

<210> 131
<211> 194
<212> PRT
<213> Homo sapiens

<400> 131

Cys Tyr Ile Thr Glu Gln Ser Gly Thr Trp Lys Cys Arg Lys Asp Met
1 5 10 15
Ala Glu Thr Val Ser Ala Phe Glu Gly Phe His Tyr Ser Pro Gly Gly
20 25 30
Lys Met Trp Gly Asp Cys Leu Asn Thr Glu His Pro Val Thr Leu Glu
35 40 45
Phe Trp Ile Asp Thr Asp Phe Phe Phe Leu Glu Ser Lys Tyr Val Ser
50 55 60
Asp Ile Ala Trp Gly Ile Leu Ile Leu Lys Thr Ile Cys Val Val Asn
65 70 75 80
Leu Lys Phe Arg Phe His Trp Val Ser Cys Met Phe Met Cys Ser Ile
85 90 95
Arg Gln Asp Phe Met Gly Lys Ile Lys Leu Ile Ser Tyr Thr Leu Phe
100 105 110

Leu Phe Leu Asp Pro Arg Ser Ser Leu Cys Ser Pro Phe Leu Leu Leu
 115 120 125
 Tyr Leu Leu Leu Gly Pro Ser Pro Cys Cys Val His Ser Phe Gln
 130 135 140
 Asp Met Gln Thr Trp Asp Thr Ala Val Gly Ser Arg Ala Met Tyr Gln
 145 150 155 160
 Ala Ala Gln Gln Ser Val Lys His Phe Pro Phe Ser Leu Gly Ala Gln
 165 170 175
 Pro Trp Gly Val Pro Cys Asn Ala Arg Gly Leu Asp Ala Ser Cys Gly
 180 185 190

Asn Thr

<210> 132
 <211> 163
 <212> PRT
 <213> Homo sapiens

<400> 132

Gly Glu Trp Cys Leu Val Phe Glu Lys Asn Ser Lys Ser Tyr His Trp
 1 5 10 15
 Phe Lys Asn Cys Phe Phe Tyr Cys Phe Val His Asp Tyr Leu Glu Gly
 20 25 30
 Ile Trp Lys Ser Asp Ala Lys Arg Thr Gly Ser Phe Pro Phe Lys Ala
 35 40 45
 Met Asp Asn Ile Pro Leu Met Lys Met Tyr Ser Cys Ile Gln Ile Cys
 50 55 60
 Arg Met Val Phe Thr Gln Tyr His Thr Lys His Leu Cys Asn Val Gly
 65 70 75 80
 Gln Thr Cys Ala Glu His Leu Ala Gln Val Leu Cys Lys Ser Lys Lys
 85 90 95
 Lys His Trp Met Phe Leu Phe His Leu Lys Glu Ile Lys Ala Thr Val
 100 105 110
 Leu Tyr Ala Gln Asn Leu Cys Val Ile Asp Arg Leu Thr Ile Gln Ile
 115 120 125
 Phe Pro Leu Gly Ile Asn Val Lys Ile Met Gln Asn Cys Asn Lys Asn
 130 135 140
 Phe Lys Met Leu Leu Gly Leu Val Tyr Leu Arg Leu Val Leu Val Phe
 145 150 155 160

Cys Thr Asn

<210> 133

<211> 152
 <212> PRT
 <213> Homo sapiens

<400> 133

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Leu Phe Leu Phe Tyr Phe Ser Phe Thr Ser Asn Ile Leu Cys Phe Leu
1      5      10      15
Glu Ala Asn Tyr Phe Lys Cys Phe Cys His Pro Leu His Ile Leu Tyr
      20      25      30
Lys Ile Glu Asp Lys Ile Ser Asn Tyr Asn Ala Arg Trp Ile Leu Asn
      35      40      45
Val Cys Tyr Ser Phe Thr Ile Leu Phe Ser Leu Tyr Met Asn Ile Leu
      50      55      60
Ile Gln His Lys Phe Phe Thr Phe Ile Thr Trp Pro Arg Lys Phe Val
65      70      75      80
Leu Lys Ser Leu Val Gln Ile Leu Ile Tyr Asn Lys Thr Tyr Ile Ile
      85      90      95
Phe Pro Asn Tyr Tyr Asn Lys Phe Ser Ile Lys Phe Leu Tyr Lys Asp
      100      105      110
Asn Tyr Leu Ser Ile Lys Tyr Ser Lys Gln Ile Glu Lys Ser Tyr Lys
      115      120      125
Val Ala His Phe Leu Cys Phe Pro Phe Val Phe Val Leu Leu Cys Phe
      130      135      140
Val Phe Asp Gly Val Leu Leu Leu
145      150

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<210> 134
 <211> 165
 <212> PRT
 <213> Homo sapiens

<400> 134

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Ile Asn Val Ala Asn Asn Lys Asn Leu Phe Cys Ser Ser Ser Gly Gly
1      5      10      15
Glu Val Arg Lys Ile Lys Ala Ser Ala Asp Gly Ser Pro Arg Ser Arg
      20      25      30
Glu Glu Phe Phe Ile Phe Ser Leu Leu Val Ala Pro Ser Asn Leu
      35      40      45
Gly Ile Pro Trp Phe Val Ala Ala Ser Leu Gln Phe Leu Pro Ser Ser
      50      55      60
Phe His Glu Leu Ile Ser Cys Val Cys Leu Cys Ile Ser Ser Leu Phe
65      70      75      80
Met Gly Cys Gln Leu Leu Asp Leu Arg Pro Thr Leu Thr Gln Tyr Glu

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	85		90		95
Leu Ile Leu Thr	Leu His Leu Gln Arg	Pro Tyr Leu Gln Ile Arg Ser			
	100	105		110	
Pro Ser Glu Val	Leu Gly Arg His Thr Phe Trp Gly Asp Thr Ile Gln				
	115	120		125	
Leu Ile Thr Pro Gln Leu Pro Lys Leu Glu Arg Ala Asn Thr Glu Asn					
	130	135		140	
His Arg Leu Gln Gly Ala Glu Ala Ser Lys Cys Asn Thr Lys His Leu					
	145	150		155	160
Asn Asn Asn His Ile					
	165				
<210> 135					
<211> 215					
<212> PRT					
<213> Homo sapiens					
<400> 135					
Gly Gln Ser Lys Thr Pro Ser Gln Asn Ser Asn Lys Pro Ile Gln Ser					
1	5	10		15	
Lys Asn Ile Ala Phe Ile Thr Val Tyr Ser Asn Ser Leu His Leu Pro					
	20	25		30	
Val Lys Phe Cys Tyr Phe Pro Tyr Lys Phe Ser Ala Phe Leu Val Lys					
	35	40		45	
Ile His His Arg Tyr Leu Ile Ala Phe Cys Cys Gly Met Met Met Met					
	50	55		60	
Thr Lys Asn Gly Ile Cys Ser Phe Leu Ser Leu Lys Phe Leu Ser Ile					
	65	70		75	80
Tyr Arg Lys Val Met Gly Phe Phe Ile Phe Thr Ser Ile Trp Phe Arg					
	85	90		95	
Cys Ala Phe Ile Asn Ser Glu Phe Glu Leu Ile Leu Ile Val Phe Tyr					
	100	105		110	
Asn His Thr Ile Lys Leu Tyr Cys Leu Leu Leu Ser Asn Ser Asn Tyr					
	115	120		125	
Ser Glu Gln Thr Ser Leu Thr Tyr Leu Phe Cys Glu Cys Ser Phe Leu					
	130	135		140	
Leu Ala Arg Lys Met Asp Val Cys Ser Ile Asn Ile Leu Ile Glu Tyr					
	145	150		155	160
Met Ile Thr Cys Ser Ser Leu Gly Glu Ser Leu Phe Leu Ile Leu Ser					
	165	170		175	
Phe Phe Phe Phe Thr Arg Met Ser Phe Lys His Phe Gly Thr Tyr Leu					
	180	185		190	

Arg Tyr Phe Phe Phe Lys Val Phe Tyr Ile Ile Leu Glu Phe Leu Asp
 195 200 205

Tyr Thr Leu Phe His Pro Cys
 210 215

<210> 136
 <211> 206
 <212> PRT
 <213> Homo sapiens

<400> 136

Val Tyr Leu Pro Leu Ser Phe Leu Thr Cys Pro Leu Cys Leu Ile Val
 1 5 10 15

Gln Ile Leu Arg Ser Ser Gly Asn Pro Gly Pro Trp Arg Leu Pro Ser
 20 25 30

Pro Phe Phe Pro Ala Ser Cys Pro Pro Leu Pro Ile Phe Pro Glu His
 35 40 45

Thr Trp Ser Pro Gln Asp Ser Ala Pro Val Tyr Ser Val Phe His Val
 50 55 60

Cys Ser Pro Leu Phe Ser Leu Leu Gly Lys Leu Leu Asn Ile Ser Gln
 65 70 75 80

Asp Arg Val Leu Ile Ser Leu Arg Met Leu Ser Leu Ala Thr Leu Asn
 85 90 95

Val Leu Arg Ala Leu Gly Ser Tyr Leu Cys Glu Ile Thr Ser Leu Thr
 100 105 110

Leu His Ile Phe Met Asp Pro Phe Phe Leu Leu Ile Cys Trp Leu Asp
 115 120 125

Lys Gly Arg His Tyr Ile His Leu Leu His Leu Trp Ile Ala Arg Val
 130 135 140

Gly Ala His Met Phe Leu Leu Asn Val Leu Phe Ile Gln Gly Ala His
 145 150 155 160

Val Gln Val Cys Tyr Ile Gly Ile Leu Cys Asp Ala Glu Val Trp Ala
 165 170 175

Ser Trp Asp Leu Ile Ala Gln Leu Val Ser Ile Val Pro Glu Arg Phe
 180 185 190

Phe Asn Pro Gly Pro Leu Pro Ser Ile Asn Ile Ser Val Thr
 195 200 205

<210> 137
 <211> 234
 <212> PRT
 <213> Homo sapiens

<400> 137

Tyr Thr Tyr Leu Tyr Ile Asn Ile Ile Phe Ile Tyr Ile Tyr Ile Gln
 1 5 10 15
 Ile Phe Ile Asn Lys Tyr Val Phe Ile Ile Tyr Leu Tyr Lys Tyr Ile
 20 25 30
 Phe Ile Tyr Leu Tyr Lys Tyr Leu Tyr Lys Tyr Ile Phe Ile Tyr Leu
 35 40 45
 Tyr Lys Tyr Val Tyr Lys Asn Ile Asn Ile Phe Ile Ile Tyr Leu Tyr
 50 55 60
 Lys Tyr Ile Tyr Ile Lys Ile Tyr Leu Tyr Lys Tyr Ile Tyr Ile Lys
 65 70 75 80
 Ile Tyr Leu Tyr Ile Ile Tyr Leu Tyr Ile Phe Ile Tyr Ile Asn Thr
 85 90 95
 His Ile His Ala Met Gly Cys Thr Tyr Phe Leu Gly Ser Cys Tyr His
 100 105 110
 His Phe Cys Tyr Arg Ser Val Gln Leu Pro Leu Leu Met Asp Ser Phe
 115 120 125
 Ile Gly Tyr Ala Phe Ser Met Val Leu Leu Lys Pro Gly Leu Ser Asn
 130 135 140
 Ser Val Ser Tyr Leu Asn Ala Glu Lys Lys Arg Thr Ile Thr Leu Ile
 145 150 155 160
 Pro Ser Val Cys Ile Ile Phe Val Leu Cys Leu Ile Pro Arg Ser Val
 165 170 175
 Phe Leu Phe Leu Ser Phe Pro His Ile Lys Asn Cys Tyr Val Ser Pro
 180 185 190
 Leu Leu Ser Leu Leu Asn Pro Ile Trp Leu Trp Phe Lys His His Gln
 195 200 205
 Arg Ile His Ala Ile Glu Ala His Gly Glu Pro Gln Val Gln Tyr Cys
 210 215 220
 Leu Ile Ser Gln Asn Leu Cys Val Asn Lys
 225 230

<210> 138
 <211> 203
 <212> PRT
 <213> Homo sapiens

<400> 138

Phe Ser Thr Pro Thr Leu Thr Ile Val Thr Ile Phe Ile Val Ser Trp
 1 5 10 15
 Val Asn Asp Ile Ser Ser Ser Val Ser Ser Ala Phe Met Lys Arg Pro
 20 25 30

Ala Val Asn Phe Ser Ser Gly Phe Val Leu Thr Ser Leu Arg Asn Leu
 35 40 45

Glu Ile Glu Ala Lys Phe Lys Leu Thr Ile Lys Leu Lys Leu Cys Gln
 50 55 60

Phe His Phe Lys Trp Ser Pro His His Leu Phe Cys His Tyr Phe Asn
 65 70 75 80

Leu Ser His His His Leu Pro Ser Gly Ile His Leu Thr Gly Leu Leu
 85 90 95

Phe Cys Phe Leu Cys Cys Pro Ile Tyr Ser Ser His Ser Ser Arg Glu
 100 105 110

Leu Leu Lys Ile Ser Leu Leu Cys His Ser His Leu Arg Asn Ser Phe
 115 120 125

Val Ser His Cys Thr Tyr Gly Thr Ile Pro Asn Ser Phe Tyr Asn Leu
 130 135 140

Arg Asp Pro Ala Ser His Cys Cys Pro Ile Trp Pro Thr Ser Phe Gln
 145 150 155 160

Asp Ile Leu Leu His Val His Ala Ala Ala Ala Leu Ala Leu Phe Gln
 165 170 175

Phe Leu Lys Gln Ala Gly Leu Phe Pro Ala Ser Glu Pro Ser Asn Met
 180 185 190

Ala Thr Phe Leu Cys Leu Glu Cys Cys Tyr Thr
 195 200

<210> 139
 <211> 132
 <212> PRT
 <213> Homo sapiens

<400> 139

Phe Ser Trp Leu Met Leu Thr Leu Val Leu Ser Pro Thr Phe Phe Pro
 1 5 10 15

Thr Ser Cys Ser His Gln Gly Pro Lys Glu Lys Ile Leu Pro Thr Leu
 20 25 30

Val Ala Leu Val Leu Val Pro His Met Val Leu Pro Cys Ala Phe Lys
 35 40 45

Val Pro Ser Leu Ala Leu Arg Arg Asp Gly Ile Leu Ala Leu Ser Phe
 50 55 60

Cys His Leu Cys Met Glu Thr Gln Val Leu Thr Cys Leu Gly Arg Val
 65 70 75 80

Ser Pro Gly Arg Leu Gly Ser Ser Pro Ala Leu Gly Asp Ser Gly Thr
 85 90 95

Trp Leu Ala Ala Thr Gln Ala His Trp Pro Ser Gly Ser His Ser Gln

100 105 110
 Ser Pro Ser Gln Val Pro Ala Thr His Ala His Ser Ser Ser Leu Pro
 115 120 125
 Phe Cys Ile Val
 130
 <210> 140
 <211> 203
 <212> PRT
 <213> Homo sapiens
 <400> 140
 Ala Arg Pro Gln Thr His Gln Lys Glu Glu Thr Pro Asp Pro Ser Glu
 1 5 10 15
 His Leu Lys Glu Gln Thr Pro Asp Thr Pro Ser Leu Arg Thr Val Thr
 20 25 30
 Leu Thr Ala Arg Val His Gly Phe Ile Leu Glu Val Ser Glu Thr Lys
 35 40 45
 Asn Pro Pro Glu Gly Thr Asn Ser Gly His Ser Ser Thr Ser Leu Lys
 50 55 60
 Asp Cys Leu Val Ser Asn Asn Pro Cys Lys Ala Ser Met Ala Asp Arg
 65 70 75 80
 Arg Ile Phe Asn Lys Tyr Leu Gln Leu Leu Ser Ile Asn Gly Ser Ser
 85 90 95
 Gln Ser Arg Glu Glu Lys Gly Thr Gln Ala Cys Gln Pro Ile Trp Val
 100 105 110
 Val Leu Cys Gln Val Gln Gly Ile Leu Ile Lys Glu Leu Arg Gly Arg
 115 120 125
 Arg Leu Cys Arg Glu Lys Met Phe Arg Asn Lys Ser Asp His Phe Gly
 130 135 140
 Lys Gln Thr Lys Lys Leu Thr Trp Ala Leu His Cys Ser Leu Phe Asn
 145 150 155 160
 Ala Met Asn Ile Ser Glu Tyr Glu Phe Asp Leu Lys Lys Ile Asn Ser
 165 170 175
 Gln Val Phe Tyr Gln Asp Leu Arg Thr Thr Met His Leu Thr Ile Gln
 180 185 190
 Leu Asp Val Val Leu Ser Thr Tyr Ile His Lys
 195 200
 <210> 141
 <211> 176
 <212> PRT
 <213> Homo sapiens

<400> 141

Ala Pro Ala Val Gly His Gly Arg Pro Pro Leu Val Arg Pro Arg Gln
 1 5 10 15
 Cys Cys Pro Val Glu Gly Thr Asn Ser Pro Arg Arg Trp Glu Gly Ser
 20 25 30
 Ala Lys Ile Gln Lys Leu Ile Leu Gln Ser Asn Val Val Cys Leu Leu
 35 40 45
 Val Leu Phe Tyr Ile Leu Met Val Phe Ser Ile Cys Arg Glu Leu Cys
 50 55 60
 Ser His His Pro Lys Lys Thr Pro Ala Leu Ile Ser Ser His Ser Ser
 65 70 75 80
 His Trp Pro Pro Ala Leu Gly Asn His Ser Thr Phe Gln His Cys Glu
 85 90 95
 Val Ile Asn Ser Gly His Phe Ile Tyr Met Glu Leu Tyr Asn Met Trp
 100 105 110
 Pro Phe Val Thr Gly Phe Phe Leu Leu Cys Tyr Met Leu Leu Ser Thr
 115 120 125
 Ile Ser Glu Gln Leu Leu Arg Ser Ile Ile Cys Thr Leu Glu Cys Asn
 130 135 140
 Ile Phe Leu Leu Asp Val Glu Trp Tyr Asn Glu Ser Val Tyr Ala Cys
 145 150 155 160
 Glu Ile Leu Leu Lys His Ser Gln Lys Cys Asp Arg His Met Cys Ile
 165 170 175

<210> 142

<211> 183

<212> PRT

<213> Homo sapiens

<400> 142

Glu Thr Ser Ser Arg His Gln Gly Val Leu Met Tyr Trp Pro Leu Ile
 1 5 10 15
 Gln Leu Ile Leu Met Ala Thr Lys Ser Lys Trp Pro Pro Val Thr Val
 20 25 30
 Ser Leu His Arg Cys Arg Gly Lys Glu Gln Cys Arg Arg Met Arg Pro
 35 40 45
 Ala Trp Tyr Ser Pro Glu Ala Arg Glu Pro Ala Cys Glu Gly Gly Asp
 50 55 60
 Ser His Cys Leu Leu Pro His Val Gly Ser Ser Gly Arg Pro Met Lys
 65 70 75 80
 Arg Gly Pro Gly Trp Ile Met Ala Arg Arg Leu Phe Arg Ala Glu Arg
 85 90 95

Cys Gln Pro His Arg Ser Glu Lys Glu Thr Gly Val Asn Val Met Gln
100 105 110

Cys Leu Glu Cys Cys Asp Gly Glu Pro Ala Val Glu Ala Leu Gly Phe
115 120 125

Cys Cys Cys Cys Trp Val Ser Phe Cys Phe Tyr Phe Phe Asn Glu Asp
130 135 140

Phe Arg Arg Phe Gln Leu Ser Leu Met Lys Thr Arg Cys Val Gly Ser
145 150 155 160

Trp Val Leu Leu Pro Ala Ala Ala Gly Val Trp Pro Leu Ser Gln Arg
165 170 175

Ala Leu Val Ile Thr Pro Leu
180

<210> 143

<211> 207

<212> PRT

<213> Homo sapiens

<400> 143

Leu Trp Tyr Lys Phe Ala Phe Arg Phe Leu Asp Tyr Arg Ile Leu Phe
1 5 10 15

Gln Arg Leu Lys Met Lys Lys Lys Leu Thr Ile Phe Ser Tyr Ile Glu
20 25 30

Cys Ser Lys Ala His Asp Lys Ile Lys Ser Leu Tyr Asn Thr Glu Cys
35 40 45

Ser Phe Leu Ile Cys Met His Cys Phe Ile Phe Phe Leu Phe Cys Leu
50 55 60

Leu Pro Asn Ile Thr Asn Lys Asn Ala Ile Phe Phe Lys Lys Lys Asp
65 70 75 80

Cys Leu Cys Ser Tyr Gly Cys Met Tyr Phe His Arg Leu Tyr Ile Phe
85 90 95

Asn Leu Arg Glu Phe Val Leu Ile Phe Leu Ser Ile Phe Asn Ser Lys
100 105 110

Leu Ala Ser His Leu Asn Arg Asn Arg Tyr Pro Arg Glu Met Leu Phe
115 120 125

His Glu Val Ser Gly Phe Ser Leu Glu Asp Gln Val Pro Phe Tyr Pro
130 135 140

Leu Leu Arg Lys Met Arg Val Asp Thr Ile Val Gln Gln Ala Arg Tyr
145 150 155 160

Thr Ser Ala Leu Gly Phe Ser Pro Glu Leu Arg Asn Ala His Phe Leu
165 170 175

Val Val Phe Leu Lys Ile Ile Ile Ile Val Leu Ile Phe Thr Val Cys
 180 185 190

Ile Glu His Ile Phe Gly Val Thr His Gly Lys Cys Tyr Phe Val
 195 200 205

<210> 144
 <211> 160
 <212> PRT
 <213> Homo sapiens

<400> 144

Arg Gly Gln Glu Leu Thr Ser Pro Gln Thr Trp Ser Asn Leu Ala Gln
 1 5 10 15

Glu Asp Val Cys Ile Pro Arg Arg Ile Gln Cys Glu Val Ser Ile Glu
 20 25 30

Gly Glu Val Thr Ala Asp Phe Glu Gly Ile Leu Met Lys Phe Leu Ser
 35 40 45

Lys Glu Lys Ile Leu Ala Asp Arg Gln Gln Ser Ile Leu Gln Thr Ile
 50 55 60

Phe Trp Gly Phe Asp Glu Ser Ile Leu Ser Ala Lys His Pro Tyr Cys
 65 70 75 80

Lys Cys Gln Thr Val Ser Ile Gly Ser Thr Gln Ser Arg His Leu Lys
 85 90 95

Leu Trp Met Leu Glu Phe Thr Ala Leu Leu Ile Leu Ser Lys His Thr
 100 105 110

Ala Ser Asn Ile Cys Leu Arg Leu Tyr His Lys Arg Gln Asp Lys Phe
 115 120 125

Ile Gly His Cys Ser Gln Asn Ile Ser Leu Pro Lys Leu Asn Tyr Val
 130 135 140

Ser Gln Glu Ile Glu Ser Asp Pro Leu Val Leu Ala Phe Cys Arg Thr
 145 150 155 160

<210> 145
 <211> 215
 <212> PRT
 <213> Homo sapiens

<400> 145

Glu Asp Lys Lys Tyr Glu Asn Phe Asn Ile Ala Asn Met Tyr Leu Ile
 1 5 10 15

Leu Leu Lys Leu Leu Phe His Val Phe Gln Lys Ile Tyr Ile Ser Arg
 20 25 30

Ile Ala His Ile Glu Ile Ala Val Ile Ile Arg Ala Gln Thr Pro Glu
 35 40 45

Ser Asp Gln Leu Phe Gln Ala Trp Phe Cys His Leu Leu Val Glu Trp
 50 55 60
 Arg Ala Cys His Ser Val Cys Leu Ser Leu Phe Pro Tyr Leu Ser Gly
 65 70 75 80
 Asp Asn Asn Asn Met Tyr Ile Ile Glu Leu Leu Ser Ser Ser Cys Lys
 85 90 95
 Ser Ile Leu Thr Lys Phe Leu Glu Asn Ala Tyr Ser Lys His Ser Ile
 100 105 110
 Thr Tyr Ala Ile Cys Ile Ser Ile Asn Arg Tyr Ile Leu Val Val Tyr
 115 120 125
 Pro Glu Thr Phe Leu Val Cys Ser Leu Leu Pro Phe Phe Phe Pro Glu
 130 135 140
 Lys Thr His Arg Phe Cys Leu Met His Gly Lys Glu Lys Tyr His Gln
 145 150 155 160
 Val Leu Gly Ser Ser Lys Lys Ile Lys Lys Pro Lys Thr Cys Thr Leu
 165 170 175
 Glu Arg Gly Lys Leu Ile Pro Met Glu Lys Lys Lys Lys Arg Asn Leu
 180 185 190
 Asn Asn Cys Ser Ser Glu Gly His Val Gly Leu Gln Arg Gly Phe His
 195 200 205
 Met Pro Phe Leu Ser Arg Gly
 210 215

<210> 146
 <211> 210
 <212> PRT
 <213> Homo sapiens

<400> 146

Glu Phe Thr Cys Gln Lys Val Ser Ile Phe Asn Ile Ile Leu Phe Phe
 1 5 10 15
 Lys Tyr Phe Cys Pro Tyr Trp Asn Phe Val Leu Phe Ser Cys Val Met
 20 25 30
 Ser Leu Phe Val Tyr Val Phe Ile Cys Cys Asn Val Leu Ile Leu Ile
 35 40 45
 Phe His Phe Leu Phe Lys Leu Thr Leu Gly Gly Cys Trp Val Ile Leu
 50 55 60
 Met Phe Ile Ile Ile Tyr Phe Ser Trp Thr Phe Leu Thr Asp Lys His
 65 70 75 80
 Arg Asp Arg Arg Asn Gly Phe Glu Trp Leu Thr Trp Phe Val Gln Asn
 85 90 95
 Leu Phe Leu Leu Leu Leu Gln Lys Arg Thr Ile Leu Glu Ile Gly Leu

100 105 110
 Cys Asp Phe Phe Phe Phe Asp Thr Pro Leu Phe Glu Gly Phe Cys Gly
 115 120 125
 Glu Gly Ser Cys Phe Ser Phe Phe Ser Ser Ser Ser Pro Gln Gly Ile
 130 135 140
 Pro Pro Phe Leu Arg Ile Phe Pro Leu Pro Gly Ser Ser Thr Val Ser
 145 150 155 160
 Arg Leu Ser Pro Thr Cys Ser Arg Arg Thr Ser Leu Gln Ser Tyr Phe
 165 170 175
 Arg Leu Pro Val Gly Asn Ile Ser Ser Gln Val Ser Asp Pro Val Pro
 180 185 190
 Leu Trp Cys Ser Phe Thr Gln Ala Gly Glu Ile Pro Leu Phe Pro Trp
 195 200 205
 Asp Glu
 210

<210> 147
 <211> 168
 <212> PRT
 <213> Homo sapiens

<400> 147

Lys Asn Gln Glu Val Leu Asp Gln His Ile Lys Pro Val Leu Phe Val
 1 5 10 15
 Glu Asp Tyr Thr Phe Val Cys Asp Lys Thr Tyr Leu Ser Glu Leu Ser
 20 25 30
 Gly Trp Ile Asn Leu Leu Ile Pro Ser Ser Ser Phe Asp Val Met Pro
 35 40 45
 Asp Thr Asn Ser Thr Ile Asn Leu Ser Leu Ser Thr Arg Val Thr Leu
 50 55 60
 Ala Phe Phe Met Ser Leu Val Ala Phe Ala Ile Met Leu Gly Asn Ala
 65 70 75 80
 Leu Val Ile Leu Ala Phe Val Val Asp Lys Asn Leu Arg His Arg Ser
 85 90 95
 Ser Tyr Phe Phe Leu Asn Leu Ala Ile Ser Asp Phe Phe Val Gly Lys
 100 105 110
 Leu Tyr Val Phe Ile Asp Ser Leu Phe Arg Phe Phe Ile Ser Lys Ser
 115 120 125
 Leu Lys Ala Phe Val Ile Ser Gly Asp Cys Ile Gln Leu Gly Lys Asn
 130 135 140
 Lys His Lys Lys Phe Lys Tyr Ile Leu Glu Gly Ala Ile Trp His Cys
 145 150 155 160

Lys Gly Met Leu Tyr Ile Cys Lys
165

<210> 148
<211> 177
<212> PRT
<213> Homo sapiens

<400> 148

Lys Ser Lys Ile Gln Asp Asn His Asp Leu Pro Pro Ser Thr Thr Leu
1 5 10 15

Lys Val Ile Leu Cys Leu Leu Ile Leu Leu Asn Thr Met Ser Gln Phe
20 25 30

Asn Val Val His Lys Ala Ile His Asn Leu Asn Ser Ile Leu Ser Leu
35 40 45

His Ser Pro Thr Phe Arg Leu Cys Pro Gly Pro Arg Tyr Pro Phe Ile
50 55 60

Ser Leu Pro Thr Leu His Ile Leu Ser His Pro His Ser Leu Asp Val
65 70 75 80

Leu Phe Asn Leu Ser Ser Pro Ser Ile Cys Thr Ser Cys Gln Thr His
85 90 95

Ile Leu Ser Ser Pro Glu Leu Ile Phe Ile Leu Glu Asp Leu Ile Gln
100 105 110

Val Phe Ser Pro Leu Gly Ala Phe Tyr Lys Pro Ser Phe Leu Cys Ser
115 120 125

Asn Leu Gly Ser Ala Val Pro Ser Ile Leu Ser Ser Thr Ile Ala Ala
130 135 140

Pro Thr Ser Ile Ile Asp Leu Ser Tyr Leu Val Val Ile Asn Cys Met
145 150 155 160

Phe Ile Asn Asn Asp Ser Asn Asp Asn Phe Gly Ile Cys Arg Leu Asn
165 170 175

Ile

<210> 149
<211> 122
<212> PRT
<213> Homo sapiens

<400> 149

Ser Ser Asn Lys Asn Ser Ser Lys Arg Gly Asp Arg Gly Leu Lys Ile
1 5 10 15

Leu Asn Lys Val Gln Thr Leu Leu Val Ile Leu Lys Phe Arg Cys Val
20 25 30

Asn Leu Ser Lys Val Leu Val Ser Pro Asp Lys Cys Glu Val Asn Glu
 35 40 45
 Glu Ser Trp Ala Val Leu Ser Lys Cys Leu Gly Ser Phe Gln Lys Pro
 50 55 60
 Ile Ser Trp Val Lys Cys Ile Asn Val Trp Leu Cys Asp Ile His Phe
 65 70 75 80
 Asn Val Val Asp Ser Phe Gly Gln Arg Ile Leu Ala Phe Pro Ser Leu
 85 90 95
 Tyr Met Tyr Pro Leu Ser Ser Thr Ile Ile Asn Phe Leu Asn Gln Leu
 100 105 110
 Pro Ile Gln Lys Thr Asn Lys Gln Thr Asn
 115 120

<210> 150
 <211> 144
 <212> PRT
 <213> Homo sapiens

<400> 150

Phe Phe Ser Phe Pro Leu Cys Ser Ser Leu Arg Phe Ile Leu Gly Gln
 1 5 10 15
 Leu Ile Ile Lys His Leu Gln Met Gln Met Tyr Asn Ile Ile Ile Asn
 20 25 30
 Thr Phe Thr Tyr Pro Ala Leu His Leu Thr Cys Thr Phe Ser His Arg
 35 40 45
 Phe Phe Glu His Met Ile Leu Gln Arg Pro Leu Thr Leu Phe Glu Cys
 50 55 60
 Asn Val Phe Ile Ser Asp Thr Ile Tyr Ile Cys Leu Tyr Ile Leu Cys
 65 70 75 80
 Asn Trp Phe Asn Val His His Val Gly Cys Glu Leu Phe Val Phe Leu
 85 90 95
 Trp His Thr Val Thr Thr Ile Val Leu Ile Asp Asp Leu Cys Leu Asn
 100 105 110
 Val Asp Arg Phe Leu Ala Asn Gln Ala Ile Val Tyr Thr Lys His Leu
 115 120 125
 Val Phe Pro Thr Pro His Leu Leu Pro Phe Phe Phe Phe Phe Phe
 130 135 140

<210> 151
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 151

Pro Pro Ala Pro Val Ala Val Ser Met Leu Ser Thr Ser Pro Cys Ala
 1 5 10 15
 Ser Ile Leu Gly Leu Cys Leu Cys Ser Gln His Arg Cys Val Leu Ser
 20 25 30
 Thr Ala Glu Ile Arg Thr Phe Thr Ile Pro Pro Ala Ala Ser Gly Ala
 35 40 45
 Pro Leu Cys Ser Gly His Leu Thr Leu Leu Gly Pro Pro His His Cys
 50 55 60
 Thr His His Thr Pro Asn Ser Pro Ala Pro Pro Gly Arg Gly Ser
 65 70 75 80
 Val Pro Glu Ser Tyr Asp Leu Gly Thr Pro Ser Pro Ser Leu Gly Trp
 85 90 95
 Leu Leu Leu Leu Pro Gly Leu Val Leu Gly Ser Thr Thr Tyr Glu Ser
 100 105 110
 Ala Arg Leu Ser Ala Val Ser Thr Cys Val Ser Val Ser Gly Gly Gly
 115 120 125
 Gly Gly Glu Val Ser
 130

<210> 152
 <211> 196
 <212> PRT
 <213> Homo sapiens

<400> 152

Thr Lys Phe Ile Pro Gly Met Leu Thr Lys Asn Phe Ser Arg Lys Ile
 1 5 10 15
 Ile Pro Arg Val Gly Leu Ile Arg Glu Leu Lys Val Gly Arg Asn Lys
 20 25 30
 Val Val Leu Ser Lys Leu Leu Pro Lys Lys Phe Arg Lys Ser Ala Val
 35 40 45
 Lys Gln Met Ser Ala Tyr Phe Leu Phe Gln Lys Met Asn Glu Ala Leu
 50 55 60
 Asp Ser His Ile Leu Ser Phe Ala Val Phe Gln Asp Ala Val Leu Phe
 65 70 75 80
 Phe Ile Gly Met Leu Ile Gln Lys Phe Val Trp Glu Asn Ser Gln Lys
 85 90 95
 Thr Leu Phe Val Glu Phe Leu Phe Ile Ser Lys Lys Val Leu Leu Ser
 100 105 110
 Val Val Phe Ile Gln His Leu Ile Phe Ile His Cys Phe Ser Cys Thr
 115 120 125

Gly Gly Asn Lys Glu Arg Met Gly Leu Val Asp Leu Ser Leu His Ser
 130 135 140
 Lys Arg Gly Asn Thr Ile Arg Tyr Ser Ser Ile Leu Tyr Val Asp Ile
 145 150 155 160
 Cys Asn Cys Cys Val Tyr Val Ser Leu Leu Glu Asn Ile Phe Leu Gln
 165 170 175
 Leu Ser Tyr Trp Val Thr Lys Phe Thr Pro Leu Asn Tyr Glu Lys Ser
 180 185 190
 Leu Pro Phe Tyr
 195

<210> 153
 <211> 150
 <212> PRT
 <213> Homo sapiens

<400> 153

Ile Ile Tyr Leu Leu Tyr His Leu Ile Phe Asn Trp Ser Val Ser Val
 1 5 10 15
 Leu Phe Ser Pro His Leu Phe Pro Leu Met Tyr Asn Gly Ser Leu Leu
 20 25 30
 Thr Asp Ile Lys Phe Thr Tyr Ser Phe Leu Cys Tyr Leu Phe Leu Leu
 35 40 45
 Asp Leu Cys His Val Tyr Ser Leu Lys Leu Leu Val Pro Ile Met Tyr
 50 55 60
 Ile Ser Val Ile Lys Leu Pro Phe Cys Ser Phe Tyr Phe Leu Cys Leu
 65 70 75 80
 Ile Arg Phe Tyr Ile Ser Leu Leu Ile Thr Gly Ile Phe Cys Phe Thr
 85 90 95
 Phe Phe Arg Ile Ile Ile Gly Ala Val Phe Lys Ile Ile Ala Cys Phe
 100 105 110
 Gln Asp Leu Phe His Leu Gly Thr Asp Leu Val Phe Cys Phe Leu Lys
 115 120 125
 Cys Leu Pro Phe Phe Tyr Met Ser Arg Asn Phe Glu Leu Tyr Ser Glu
 130 135 140
 His Ser Asn Tyr Val Val
 145 150

<210> 154
 <211> 188
 <212> PRT
 <213> Homo sapiens

<400> 154

His Cys Ile Pro Ile Leu Ala Gln Thr Val Phe Trp Ser Pro Ile Tyr
 1 5 10 15
 His Pro Phe Ser Val Val Leu Val Leu Val Phe Ala Ile Cys Trp Ala
 20 25 30
 Pro Phe His Ile Asp Arg Leu Phe Phe Ser Phe Val Glu Glu Trp Ser
 35 40 45
 Glu Ser Leu Ala Ala Val Phe Asn Leu Val His Val Val Ser Gly Lys
 50 55 60
 Thr Leu Ala Gly Phe Gly Ala Leu Val Phe Arg Gln His Leu Leu Leu
 65 70 75 80
 His Leu Ala Met Pro Lys Tyr Ser Asn Leu Ser Arg Gly Ser Ala Met
 85 90 95
 Leu Arg His Leu Ile Phe Leu Leu Phe Arg Asp Leu Cys Leu Ile Leu
 100 105 110
 Phe Gln Ile His Ile Tyr Gln Ile Thr Ile Phe Lys Ala Thr Leu Trp
 115 120 125
 Lys Thr Ser Ser Leu Thr Val Met Ile Thr Glu Gly Lys Trp Ser Arg
 130 135 140
 Ser Asp Ser Phe Gly Tyr Pro Pro Asn Gly His Ala Ile Lys Leu Val
 145 150 155 160
 Leu Ile Thr Pro Met Ser Leu Glu Ile Ser Tyr Cys Leu Trp Glu Val
 165 170 175
 Leu Tyr Pro His Glu Gly Lys Leu Asn Gly Ile His
 180 185

<210> 155
 <211> 194
 <212> PRT
 <213> Homo sapiens

<400> 155

Leu Glu Val Gly Leu Trp Ala Ala Ser Phe Ile Leu Ala Leu Pro Val
 1 5 10 15
 Trp Val Tyr Ser Lys Val Ile Lys Phe Lys Asp Gly Val Glu Ser Cys
 20 25 30
 Ala Phe Asp Leu Thr Ser Pro Asp Asp Val Leu Trp Val Val Lys Thr
 35 40 45
 Glu Lys Arg Val Glu Leu Ser Cys Glu Glu Leu His Ser Pro Cys Gln
 50 55 60
 His Val Ser Ser Leu Lys Glu Tyr Pro Tyr Gly Ser Ser Ser Arg Gln
 65 70 75 80
 Tyr Leu His Val Ser Pro His Ile Gln Ser Arg Val Phe Leu Arg Arg

85								90					95				
Gly	Pro	Leu	Glu 100	Lys	Asp	Phe	Glu	Phe 105	Asn	His	Val	Thr	Ser 110	Val	Asp		
Thr	Asn	Ile 115	Phe	Lys	His	Gly	Phe 120	Thr	Phe	Ile	Ala	Ala 125	Arg	Arg	Ser		
Gly	Asn 130	Ala	Ala	Ile	Lys	Gly 135	Gly	Lys	Glu	Phe	Pro 140	Glu	Ser	Leu	Arg		
Leu 145	His	Leu	Ile	Ser	Met 150	Gln	Leu	Gln	Phe	Ala 155	Ile	Met	Ser	Pro	Ile 160		
Lys	Thr	Cys	Ser	Ser 165	Pro	Thr	Pro	Ala	Pro 170	His	Thr	Cys	Glu	Cys 175	Asp		
Leu	Ile	Trp	Lys 180	Gly	Phe	Phe	Arg	Cys 185	Asn	Gln	Ala	Lys	Leu 190	Arg	Ala		

Cys Trp

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<210> 156
<211> 234
<212> PRT
<213> Homo sapiens
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<400> 156

Leu 1	Leu	Gly	Leu 5	Tyr	Ile	Phe	Leu	Ser	Leu 10	Val	Cys	Leu	Glu	Trp 15	Thr
Leu	Phe	Gln	Ser 20	Phe	Cys	Phe	Leu	Phe 25	Leu	Cys	His	Leu	Val 30	Ile	Phe
Ile	Asp	Trp 35	Gly	Thr	Leu	Gly	Gly 40	Ser	Gly	Leu	Arg	Thr 45	Ser	Val	His
Gln	Gly 50	Thr	Leu	Ala	Gly	Gln 55	Glu	Arg	Ser	Glu	Pro 60	Trp	Gly	Arg	Ala
Gln 65	Val	Lys	His	Lys 70	Leu	Gly	Ser	Ser	Cys	Pro 75	His	Leu	Pro	Gly	Glu 80
Ile	Arg	Thr	Leu 85	Cys	Cys	Gly	Lys	Ala	Pro 90	Val	Leu	Thr	Leu	Cys 95	Gly
Gly	Gly	Val	Leu 100	Leu	Gln	Tyr	Cys	Cys 105	Gly	Lys	Ala	Pro	Pro 110	Phe	Leu
Val	Phe	His 115	Ile	Gly	Leu	Ile	Tyr 120	Ser	Tyr	Phe	Leu	Tyr 125	Leu	Phe	Cys
Pro	Leu 130	Ile	Ser	Phe	Cys	Ser 135	His	Leu	Ile	His	Phe 140	His	Pro	Asn	Tyr
His 145	Ser	Val	Leu	Tyr 150	Thr	Tyr	Ser	Tyr	Ile	Ile 155	Ala	Ser	Leu	Ser	His 160

Lys Leu Trp Tyr Asp Lys Val Met Phe Val His Cys Phe Cys Lys Lys
165 170 175

Ala His Ser Ala Phe Trp Gly Tyr Leu Leu Ile Asn Leu Tyr Arg Ile
180 185 190

Pro Met Arg Ile Gly Leu Asp Arg Val Phe Ser Thr Gln Phe Thr Arg
195 200 205

Pro Cys Cys Leu Ser Ile Met Ile Lys Asp Tyr Tyr Tyr Val Lys Met
210 215 220

Phe Ile His Ile His Lys Phe Val Glu Ile
225 230

<210> 157

<211> 183

<212> PRT

<213> Homo sapiens

<400> 157

His Leu Ile Leu Pro Leu Gly Cys Gln Pro Ala Asp His Arg Met Thr
1 5 10 15

Phe Ser Gly Tyr Ala Gln Asn Lys His Phe Arg Tyr Phe Leu Phe Phe
20 25 30

Glu Tyr Lys Asn Phe Leu Asp Tyr Val Leu Phe His Leu Ile Lys Ser
35 40 45

Leu Arg Pro Asn Leu Phe Arg Tyr Ile Cys Cys Ile Tyr His Leu Ile
50 55 60

Ser Leu Lys Leu Cys Cys Leu Gln Lys Leu Leu Ala Gly Thr Ser Val
65 70 75 80

Tyr Asn Ile Leu Ser Ser Thr Leu Thr Ile Ser Ser Ala Pro Lys Gln
85 90 95

Gly Leu Gly Leu Pro Phe Gln Glu Tyr Phe Tyr Tyr Ile Tyr Cys Arg
100 105 110

Gln His Arg Thr Leu Ser Lys Cys Leu Leu Ile Ser Pro Val Lys Ala
115 120 125

Ser His Ser Tyr Leu Tyr Ser Ile Gln Tyr Lys Ile Phe Lys Thr Tyr
130 135 140

Gly Gln Asn Lys Arg Ser Thr Ile Leu Thr Lys Leu Asn Leu Tyr Val
145 150 155 160

Tyr Phe Leu Tyr Leu Tyr Thr Phe Thr Cys Leu Leu Glu Asp Thr Val
165 170 175

Asn Thr Asp Asn Phe Lys Glu
180

<210> 158
 <211> 149
 <212> PRT
 <213> Homo sapiens

<400> 158

Lys Ile Ile Gln Asn Ala Cys Gln Ile Ile Leu Thr Ser Leu Pro Cys
 1 5 10 15
 Trp Cys Phe Trp Ser Ile Asp Cys Phe Phe Ser Phe Lys Leu Ile Leu
 20 25 30
 Ser Ile Met Ser Asp Phe Leu His Asn Thr Leu Gly Ile Met Phe Asn
 35 40 45
 Ser Gly Ser Tyr Leu Asn Pro Leu Phe Tyr Val Asp Phe Ser Asp Thr
 50 55 60
 Thr Leu Ile Gly Val Gly Val Gly Val Thr Val Ser Leu Pro Arg Arg
 65 70 75 80
 Gly Trp Lys Tyr Ser Phe Pro Thr Pro Val Leu Ile Leu Glu Trp Glu
 85 90 95
 Ser Ser Leu Gln Leu Gly Gly Ile Gly Ala Thr Ala Pro Cys Trp Val
 100 105 110
 Pro Thr Tyr Thr Thr Leu Ala Gly Ser Gly Arg Ser Ala Leu Ser Leu
 115 120 125
 Cys Pro Met Trp Pro Pro Leu Thr Leu Trp Gly Gly Val Ser Leu Leu
 130 135 140
 Pro Leu Ser Gly Gly
 145

<210> 159
 <211> 207
 <212> PRT
 <213> Homo sapiens

<400> 159

Cys Ala Gly Ser Lys Arg Pro Thr Ile Ala Leu Leu Ala Thr Leu Ser
 1 5 10 15
 Gly Lys Leu Asp Trp Asp Asn Glu Thr Glu Thr Ser Gly His Val Asn
 20 25 30
 Met Ser His Thr Gly Gly Glu Trp Leu Val Asp Arg Gln Val Val Phe
 35 40 45
 Ser Leu Thr Val Leu Val Ala Leu Cys Gly Leu Val Gly Asn Asp Val
 50 55 60
 Ile Cys Trp Leu Leu Tyr Ser Gln Val Trp Ser Ser Pro Tyr Val Thr
 65 70 75 80

Tyr Ile Leu Asn Leu Ala Thr Val Asp Met Val Asn Leu Ser Cys Val
 85 90 95
 Thr Val Ile Leu Leu Glu Lys Ile Leu Met Leu Tyr His Gln Ala Ala
 100 105 110
 Leu Gln Val Ala Val Phe Leu Asp Pro Val Ser Tyr Phe Ser Asp Thr
 115 120 125
 Val Gly Leu Cys Leu Leu Val Ala Met Ser Ile Glu Ser Phe Leu Cys
 130 135 140
 Ala Leu Cys Pro Thr Trp Cys Cys His Arg Pro Glu His Thr Ser Ala
 145 150 155 160
 Met Val Arg Trp Ala Leu Ala Leu Ser Leu Tyr Ala Val Ser Gln Val
 165 170 175
 Cys Glu Tyr Trp Glu Lys Cys Leu Ala Cys Asp Gln Phe His Glu Ala
 180 185 190
 Leu His Val Met Tyr Leu Phe Ala Leu Trp Ala Cys Pro Ser Ser
 195 200 205

<210> 160
 <211> 198
 <212> PRT
 <213> Homo sapiens

<400> 160

Ile Asn Ile Ser Phe Phe Lys Asn Asn Asn Val Ile Val Tyr His Phe
 1 5 10 15
 Asp Asn Ile Phe Ile Leu Asn Phe Asn Lys Lys Ala Cys Leu Leu Ile
 20 25 30
 Phe Leu Ile Asn Tyr Leu Val Phe Lys Tyr Leu Ser Tyr Leu Lys Thr
 35 40 45
 Asp Ile Ser Ile Thr Lys Ser Thr Ser Asn Ser Lys Pro Gly Arg Lys
 50 55 60
 Ala Asn Lys Ile Thr Asn Phe Lys Leu Arg Leu Leu Ser Gly Met Cys
 65 70 75 80
 Leu Cys Leu Leu Leu Phe Thr Val Thr Phe Ala Phe Phe Ser Thr Gln
 85 90 95
 Phe Thr Ser Glu Leu Gly Met Lys Leu Ile Leu Ala Tyr Phe Phe Pro
 100 105 110
 Phe Val Phe Val Lys Glu Glu Thr Gln Ser Ile Leu Glu Asn Pro Val
 115 120 125
 Trp Asn Ile Leu Met Phe Thr Ile Ser Asn Ile Met Lys Tyr Val Thr
 130 135 140
 Tyr His Leu His Leu Phe Gly Asn Tyr Leu Cys Thr Phe His Phe Asp

145 150 155 160
 Thr Gln Lys Trp Pro Leu Phe Phe Leu Cys Met Lys Pro Ile Tyr Tyr
 165 170 175
 Ile Arg Phe Tyr Ser Ile Ser Lys Leu Phe Gln Ser Ser Phe Ile Gly
 180 185 190
 Gln Thr Asp Ser Gln Tyr
 195

<210> 161
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 161

Met Val Glu Ser Val Lys Leu Val Lys Ser Phe Leu Leu Val Leu Gly
 1 5 10 15
 Thr Phe His Phe Lys Asn Ile Ser Lys Tyr Asn Tyr Ile Cys Pro Ser
 20 25 30
 Pro Phe Leu Lys Gly Leu Tyr Ile Ile Thr Tyr Ile Leu Phe Tyr Leu
 35 40 45
 Val Leu Phe Ile Tyr Pro Gly Asp His Phe Gln Ser Ser Val Tyr Ser
 50 55 60
 Ser Leu Cys Lys Cys Lys Thr Asp Tyr Ser Ala Ser Asn Thr Gly Trp
 65 70 75 80
 Thr Phe Leu Ser Phe Thr Leu Leu Leu Ile Val Leu Ile Ala Leu Pro
 85 90 95

Phe Cys

<210> 162
 <211> 185
 <212> PRT
 <213> Homo sapiens

<400> 162

Arg Arg Ser Pro Pro Ala Gly Thr Ala Ala Ala Ser Ala Gln Pro Thr
 1 5 10 15
 Trp Glu Gly Gly Ser Leu Ser Gly Ser Phe Asn His Thr Gln Gly Ile
 20 25 30
 Ala Val Phe Cys Leu Gly Val Arg Glu Ser Ser Pro Trp Ser Trp Gly
 35 40 45
 Thr Ala Leu Met Ser Glu Glu Asn Leu Ala Leu Gly Val Trp Thr Thr
 50 55 60
 Cys Val Lys Ile Leu Ala Trp Arg Leu Pro His Cys Val Thr Leu Ser

65 70 75 80
 Lys Phe Leu Asn Leu Ser Gly Ser Pro Phe Ser Arg Cys Thr Thr Gly
 85 90 95
 Gly Thr Val Pro Arg Arg Thr Leu Arg Ser Ser Val Gly Gly Glu Trp
 100 105 110
 Gly Leu Val Trp Ala Arg Arg Gly Leu Ala Ser Gln Ser Pro Glu Leu
 115 120 125
 Arg Ile Glu Arg Val Phe His Phe Thr Gly Gly Arg Gly Ala Ser Pro
 130 135 140
 Thr Ser Trp Thr Ser Leu Pro Gly Val Gly Lys Gly Gly Val Gly Ala
 145 150 155 160
 Val Leu Ser Ser His Thr Trp Thr Asp Ser Ser Thr Pro Tyr Ala Pro
 165 170 175
 Pro Ser Leu Pro Ser Ser Gly Pro Arg
 180 185

<210> 163
 <211> 189
 <212> PRT
 <213> Homo sapiens

<400> 163

Pro Ser Pro Gly Ser Phe Arg Thr Lys Thr Phe Leu His Ser Leu Leu
 1 5 10 15
 Cys Val Ile Lys Ile Gly Ser Asn Pro Pro Thr His Ser Met Lys Gly
 20 25 30
 Asn Thr Val Val Lys Asn Leu Lys Phe Phe Ser Val Asn Ser Asn Pro
 35 40 45
 Gly Trp His Leu Asn Phe Glu Arg Ser Lys Arg Val Asp Leu Ala Val
 50 55 60
 Tyr Gln Leu Pro Thr Val Leu Ser Asp Pro Trp Lys Phe Leu His Ile
 65 70 75 80
 Leu Trp Arg Pro Phe Arg Ala Glu Ile Cys Leu Gly Val Cys Gly Thr
 85 90 95
 Glu His Ser Gly Cys Arg Met Trp Gln Ser Ile Arg Ser Leu Leu Arg
 100 105 110
 Pro Ser Leu Ser Leu Trp Gly Ser Phe Leu Glu Val Glu Pro Glu Ser
 115 120 125
 Phe Ser Arg Leu Gly Thr Cys Glu Leu Thr Gly Tyr Leu Arg Thr Val
 130 135 140
 Glu Ala Asn Lys Glu Ala Gln Glu Ala Ser Glu Val Ser Tyr Ile Ala
 145 150 155 160

MISSING AT THE TIME OF PUBLICATION

Val Leu Asn Arg Cys Thr Val Ser Ser Gly Thr Ile Glu Leu Leu Phe
 35 40 45
 Trp Ala Tyr Glu Leu Phe Pro Val Pro Tyr Cys His Pro Ile Phe Ala
 50 55 60
 Ile Tyr Lys Met Ser Ile Phe Phe Met Gly Val Asp Glu Leu Leu Phe
 65 70 75 80
 Gly Phe Ile Glu Gly Cys Phe Gly Thr Phe Ile Ser Ala Asn His Gly
 85 90 95
 His Ala Ser Ile Cys Pro Arg Glu Arg Ala Ser Lys Cys Asn Val Leu
 100 105 110
 Asp Val Ser Val Lys Ser Pro Gln Glu Ala His Asp Ser Asn His Arg
 115 120 125
 Gly Ser Gln Gly Pro Ser Arg Thr Gly Thr Ser Gly Leu Ala Cys Gly
 130 135 140
 Phe Ser Trp Tyr Val Cys Ile Ala
 145 150

<210> 171
 <211> 197
 <212> PRT
 <213> Homo sapiens

<400> 171

Gly Gln Val Lys Lys Ser Lys Leu Phe Gly Leu Gln Phe Ser Gln Thr
 1 5 10 15
 Gln Glu Pro Ile Ile Gln Lys Gln Leu Ser Tyr Tyr Leu Phe Leu Leu
 20 25 30
 Gly Gly Thr Pro His Lys Gln Gly Leu Ala Gly Val Val Phe Val Leu
 35 40 45
 Tyr Trp Leu Arg Glu Gly Lys Gly Val Phe Leu Ile Val Phe Pro Val
 50 55 60
 Ala Gln Ile Leu Arg Cys Gly Asn Ala Tyr Cys His Phe Gly Lys Asn
 65 70 75 80
 Ser Phe Phe Ile Tyr Asn Thr Tyr Val Ile Ile Leu Ile Gln Phe Tyr
 85 90 95
 Lys Ile Ile Tyr Asn Met Lys Tyr Ile Phe Glu Lys Asn Asn Tyr Leu
 100 105 110
 Tyr Tyr Leu Tyr Leu Phe Arg Pro Cys Leu Ser Lys Val Leu Leu Ser
 115 120 125
 Leu Ala Thr Val Tyr Phe Pro Leu Trp Phe Glu Leu Lys Gln Met Leu
 130 135 140

Lys Glu Asn Lys Pro Ser Glu Pro Pro Asp Ser Phe Ile Ala Ala Val
 145 150 155 160
 Tyr Leu Leu Leu Ile Leu Leu Lys Phe Met Leu Gln Gln Ser Lys Thr
 165 170 175
 Gln Trp Ser Glu Thr Ser Leu Ile Glu Thr Gln Val Phe Leu Val Ser
 180 185 190
 Pro Leu Asp Arg Ala
 195

<210> 172
 <211> 174
 <212> PRT
 <213> Homo sapiens

<400> 172

Lys Gln Asn Leu Glu Ser Val Glu Ala Met Ile Phe Tyr Ser Phe Met
 1 5 10 15
 Thr Leu Arg Gln Cys Asn His Gly Leu Tyr Leu Ser Tyr Phe Phe Leu
 20 25 30
 Tyr Ser Met Ile Leu Leu Tyr Trp Val Ile Phe Gly Ser Gln Glu Ser
 35 40 45
 Met Ala Leu Val Trp Asn Phe His Gly Val His Lys Asn Asp Phe Asn
 50 55 60
 Gln His Ile Ile Ile Asn His Ile Tyr Ile Gly Ser Arg Tyr Arg Ser
 65 70 75 80
 Thr Cys Leu Ala His Ser His Ile Ser Val Ser His Gln Ser Ser Thr
 85 90 95
 Glu Arg Gly Gln Ile Phe Gln Lys Lys Gly Leu Glu Asn His Leu Glu
 100 105 110
 Gln Val Ala Ser Leu Ile Tyr Asn Leu Gly Asn Arg Ile Gly Glu Pro
 115 120 125
 Ile Lys Gly Ser Cys Ser Phe Ala Pro Glu Asn Lys Thr Gly Thr Pro
 130 135 140
 Ala Met Thr Val Lys Tyr His Arg Leu Pro Cys Asn Ser Asp Pro Ser
 145 150 155 160
 Arg Leu His Leu Trp Gly Ser Leu Arg Thr Arg Gly Phe Gly
 165 170

<210> 173
 <211> 175
 <212> PRT
 <213> Homo sapiens

<400> 173

Lys Asn Cys Ile Lys Phe Ala Gln Phe Gly Gly Lys Thr Gly Phe Gln
 1 5 10 15
 Lys Ser Ile Thr Leu Phe Leu Ile Asn Pro Leu Val Ser Gln Ser Phe
 20 25 30
 Ile Leu Trp Ser Ile Ile Ser Gln Ser Val Pro Ile Arg Lys Thr Lys
 35 40 45
 Asn Thr Val His His Ser Asn Thr Lys Gly Phe Asn Ser Gly Lys Arg
 50 55 60
 Leu Gln Arg His Trp Lys Gly Trp Gly Arg Lys Glu Arg Arg Leu Pro
 65 70 75 80
 Arg Asp Glu Arg Ala Ala Thr Thr Leu Arg Leu Glu Pro Ser Ser Cys
 85 90 95
 Ile Cys Cys Trp Arg Leu Arg Cys Gly Gln Cys Pro Phe Ser Thr Phe
 100 105 110
 Thr Glu Glu Ala Leu Cys Gly Gln Cys Arg Ile Gly His Asp Thr Ser
 115 120 125
 Thr Thr Gly Ala Arg Ser Glu Trp Arg Leu Ser Ser His Gln Leu Ser
 130 135 140
 Leu Ala Lys Phe Asp Lys Pro Val Gly Lys Gly Phe Trp Gln Met Glu
 145 150 155 160
 Tyr Thr Gly Phe Gln Ala Leu Gln Leu Asn Arg Val Gln Lys Gly
 165 170 175

<210> 174
 <211> 193
 <212> PRT
 <213> Homo sapiens

<400> 174

His Asp Gly Arg Ala Tyr Cys Thr Ser Met Leu Gly Ile Ala Tyr Gly
 1 5 10 15
 Ser Ala Thr Asn Leu Phe Ser Met Leu Leu Asp Ile Val Gly Asn
 20 25 30
 Cys Asn Thr Met Val Ser Ile Cys Val Ser Lys Tyr Ile Asn Met Glu
 35 40 45
 Arg Thr Gln Lys Tyr Ser Ile Ile Ile Ser Trp Asp His His Cys Ile
 50 55 60
 Ser Gly Ser Leu Thr Lys Thr Leu His Asp Cys Ser Ser Leu Leu Gly
 65 70 75 80
 Gly Gly Gln Lys Leu Val Arg Asn Gly Trp Gln Leu Glu Gly Lys Glu
 85 90 95
 Met Thr Gln Ala Leu His Ser Pro Thr Ala Ala Ala His Arg Trp Pro

100 105 110
 Ser Thr Gly Lys Pro Glu Leu Thr Glu Leu Thr Pro Gly Glu His Ser
 115 120 125
 Leu Ile Gly Phe Ile Ile Ile Ser Gln Ser Lys Thr Glu Leu Trp Leu
 130 135 140
 Arg Ile Lys Ala Arg Phe Phe Phe Leu Asn Ser Ile Ile Phe Ile Lys
 145 150 155 160
 Leu Ser Lys Val Ser Leu Gly Lys Thr His Met Ser Gln Ala Phe Ser
 165 170 175
 Val Ser Arg Gly Lys Arg Leu Phe Gln Lys Gln Lys Glu Glu Phe Ile
 180 185 190
 Ser

<210> 175
 <211> 236
 <212> PRT
 <213> Homo sapiens

<400> 175

Leu Ser Cys Ser Pro Pro His Pro Gly Thr Pro Asn Pro Ser Pro Cys
 1 5 10 15
 His Leu Gly Phe Cys Ile Ile Leu Thr Gly Phe Tyr His Thr Phe Ile
 20 25 30
 Tyr Leu Phe Ile His Phe Leu Cys Leu Leu Ser Ala Phe Cys Leu Ser
 35 40 45
 His Ser Met Lys Thr Leu Gly Val Ser Met Lys Thr Ala Arg Leu Arg
 50 55 60
 Ser Leu Leu Glu Ala Gln Trp Thr His Arg Leu Ser Ser Pro Leu Gly
 65 70 75 80
 Thr His His His Ile His Ile Glu Phe Thr Leu Pro Thr Gly Cys Phe
 85 90 95
 Gln Pro Ala Ala Glu His Ser Lys Val Ile Asn Thr Asp Pro Phe Gly
 100 105 110
 Lys Met Gln Asp Ser Leu Met Gly Asp Phe Gly Ser Arg Ile Pro Arg
 115 120 125
 Trp Trp Gly Gln Ser Ile Pro Gly Ile Ala Leu Gln Pro Lys Ala Val
 130 135 140
 Leu Leu Gln Ala Ser Ser Leu Pro Cys Leu Leu Leu Gln Ala Ser Asp
 145 150 155 160
 Leu His His Ser Val Arg Leu Ser Leu Ser Phe Leu Ala Leu Ser Pro
 165 170 175

Gly Asn Val Ile Leu Ser Trp His Leu Leu Leu Ser Gly Thr Gly Leu
180 185 190

Met Tyr Gly Phe Cys Ser Leu Met Tyr Pro Glu Tyr Leu Asp Leu Glu
195 200 205

Val Cys Ser Lys Tyr Leu Trp Lys Glu Arg Leu Met Lys Ala Lys Cys
210 215 220

Lys Pro Ile Ala Phe Ile Leu Gly Ala Ala Pro Arg
225 230 235

<210> 176
<211> 129
<212> PRT
<213> Homo sapiens

<400> 176

Gln Leu Ile Phe Thr His Ala Ile Leu Leu Ser Asp Asp His Phe Asn
1 5 10 15

Ser Ile Lys Trp Lys Gln Asp Asn Val Ser Val Ile Leu Ser Leu Val
20 25 30

Ser Arg Ala Gln Ala Ile Val Phe Thr Met Leu Ser Gln Phe Ser Leu
35 40 45

Pro His Cys Arg Cys Val Leu Arg Gly Ala Val Gly Ser Ile Val Cys
50 55 60

Pro Glu Pro His Val Asn Gly Asn Met Met Val Leu His Cys Glu Arg
65 70 75 80

Arg His Asp Arg His Gly Asn Val Ser Gly Arg Asn Lys Ser Ile Ile
85 90 95

Lys Ile Leu Arg Gln Lys Phe Lys Asn Ser Trp Pro Leu Gly Glu Gly
100 105 110

Leu Ser Phe Ile Lys Asn Ile Phe Met Ile Ile Asn Leu Tyr His Thr
115 120 125

Arg

<210> 177
<211> 185
<212> PRT
<213> Homo sapiens

<400> 177

Leu Leu Val Pro Ser Thr Pro Cys Phe His Gly Cys Gly Val Ile Cys
1 5 10 15

Leu Lys Lys Ser Ser Pro Tyr Pro Ile Trp Leu Thr Ala Ser Ser Leu
20 25 30

Ser Gly Phe Ile Leu Ala Phe Ser Met Val Asn Leu Pro Pro Asn Ser
 35 40 45
 Pro Ser Leu Pro Ser Leu Glu Tyr Ser Ser Pro Ile Leu Leu Trp Tyr
 50 55 60
 Pro Val Met Pro Leu Ala Asn Tyr Leu Ile Ile Leu Pro Ala Ile Asp
 65 70 75 80
 Cys Ser Cys His Trp Thr Val Phe Val Leu Leu Leu Met Phe Tyr Pro
 85 90 95
 Pro Val Pro Asn Thr Val Ser Gly Thr Gln Tyr Val Leu Ser Lys His
 100 105 110
 Leu Leu Val Ser Ser Asn Ser Leu Ser Val Lys Arg Val Ala Lys Gln
 115 120 125
 Ile Phe Asn Ile Ser Asp Leu Tyr Phe Phe Val Glu Tyr Ile Val Ala
 130 135 140
 Arg Glu Glu Cys Thr Pro Leu Gln Lys Ile Tyr Thr Tyr Ile Phe Met
 145 150 155 160
 Phe Tyr Ile Ile Gln Ser Leu Cys Ser Ile Ser Pro Thr Glu Gln Phe
 165 170 175
 Lys Ala His Phe Cys Leu Val Ser Glu
 180 185

<210> 178
 <211> 196
 <212> PRT
 <213> Homo sapiens

<400> 178

Ala Gly Glu Arg Gly Ser Glu Gln Thr Glu Glu Gly Gly Leu Cys Gly
 1 5 10 15
 Thr Asp Leu Gly Arg Ala Leu Val Ile Ile Leu Ser Phe Tyr Phe Gly
 20 25 30
 Lys Ser His Gly Ala Val Thr Leu Ala Val Asn Gly Pro Lys Pro Pro
 35 40 45
 Leu Ser Ser Ala Gly His Asp Ala Leu Trp Gln Val Cys Leu Gly Leu
 50 55 60
 Pro Glu Arg Ser Gln Ser Leu Val Phe Phe Ser Ala Thr Tyr Leu Asp
 65 70 75 80
 Arg Glu Ile Leu Thr His Ser Ala Asp Trp Ala Pro Thr Val Cys Val
 85 90 95
 Cys Val Arg Arg Phe Leu Val Gly Thr Leu Gly Gly Ser Ala Ser Trp
 100 105 110

Asp Ala Phe Gly His Leu Cys Val Cys Pro Phe Gly Gly Gly Cys Ala
 115 120 125
 Gly Thr Leu Leu Pro Leu Gln Val Ser Val Ile Ile Thr Ile Trp Ser
 130 135 140
 Gly Leu Tyr Cys Glu Trp Pro Arg Val Ala Val Gly His Val Asn Gln
 145 150 155 160
 Arg Cys Pro Val Val Gly His Trp Trp Glu Glu Gly Trp Asp Glu Cys
 165 170 175
 Leu Pro Leu Ser Ala Val Arg Cys Val Asn Ile Ser Leu Asn Pro Met
 180 185 190
 Arg Ser Gly Gly
 195

<210> 179
 <211> 197
 <212> FRT
 <213> Homo sapiens

<400> 179

Ser Ala Leu Thr Gln Ser His Leu Ala Met Lys Ile Leu Arg Asn Ser
 1 5 10 15
 Leu Leu Leu Ser Arg Ala His Leu Thr Gln Ser His His Gln Pro Gln
 20 25 30
 Glu Gly Val Ala Leu Gly Gly Leu Gly Glu Arg Glu Gly Pro Gly Glu
 35 40 45
 Arg Thr Ala Gly Leu Lys Pro Leu Arg Arg Glu His Ala Cys Ser Pro
 50 55 60
 Gly Thr Gly Arg Gly Arg Pro Ala Glu Leu Gln Gln Ala Arg Asn Gln
 65 70 75 80
 Ala Thr Ala His Pro Gln Glu Gln Asp Asp Trp Lys Gly Ala Arg Gly
 85 90 95
 Leu Gln Thr Leu Asn Cys Leu Asp Met Trp Leu Lys Ala His Ser Asn
 100 105 110
 Cys Asn Ala Arg Lys Arg Pro Pro Asp Trp Cys His Leu Gly His Leu
 115 120 125
 His Asp Lys Leu Ser His His Thr Pro Pro Glu Gln Lys Ala Arg Leu
 130 135 140
 Leu Cys Pro Val Glu Ala Gly Pro Ser Leu Glu Thr Ser Leu Thr Asp
 145 150 155 160
 Thr Thr Gly Phe Lys His Gly Leu Leu Pro Arg Phe Ile Trp Leu Cys
 165 170 175
 Ser Ala Ser Leu Ser His Gly Arg Met Asn Ala Cys Ile Pro Gln Lys

180

185

190

Glu Ala Ser Gly Leu
195

<210> 180
<211> 194
<212> PRT
<213> Homo sapiens

<400> 180

Gly Leu Cys Leu Tyr His Leu Pro Gln Pro Thr Ser Ile Gln Leu Met
1 5 10 15

Ala Ala Pro Thr Phe Lys Gln Ser Leu Val Leu Ala Phe Val Trp Leu
20 25 30

Tyr Phe Leu Phe Pro Arg Pro Ser Leu Pro Ser Phe Pro Ala Ser Ser
35 40 45

Leu Lys Ser Gly Gln Thr Ser Lys Ser Gly Cys Ser Ser Val Cys Trp
50 55 60

Val Phe Ser Phe Leu Pro His Leu Ser Thr Pro Phe Leu Trp Val Ile
65 70 75 80

Phe Ser Phe Pro Ala Met Leu Asn Ala Ile Phe Val Leu Thr Ala Pro
85 90 95

Gln Phe Gly Leu Gln Pro Asn Pro Leu Cys His Ile Leu Phe Pro Leu
100 105 110

Ser His Tyr Ala Pro Arg Arg Arg Ile Thr Leu Phe Cys Val Gly Ala
115 120 125

Ser Asp Leu Leu Asn Pro Val Pro Glu Thr Leu Gly Leu Trp Leu Phe
130 135 140

Leu Phe Leu Leu Leu Ser Ser Val Ser Leu Phe Gln Lys Gly Tyr Ile
145 150 155 160

Ser Asp Ser Ser Ser Ser Asn Ile Gly Thr Leu Pro Ile Ile Leu His
165 170 175

His Ile Ser Tyr Leu Phe Ser Phe His Leu Phe Lys Leu Ser Thr Phe
180 185 190

Cys Leu

<210> 181
<211> 230
<212> PRT
<213> Homo sapiens

<400> 181

Tyr Gly Pro Met Arg Ala Arg Leu Pro Ile Ile Cys Ser Cys Ser Pro

1		5		10		15									
Phe	Pro	Pro	Val	Gly	Ser	Ala	Phe	Ala	Asn	Ile	His	Met	Tyr	Phe	Gln
			20					25					30		
Lys	Asp	Pro	His	Gly	Pro	His	Leu	Pro	Ser	Thr	Gly	Gly	Arg	Glu	His
		35					40					45			
His	Gly	Pro	Arg	Thr	Gly	Asn	Val	Val	Leu	Val	Gln	Ser	Tyr	Gln	Leu
	50					55					60				
Leu	Pro	Val	Pro	Phe	Thr	Leu	Cys	Arg	Ser	Phe	Leu	Gly	Leu	Cys	Ser
65					70					75					80
Ile	Phe	Arg	Gly	His	Trp	Leu	Lys	Ser	Ala	Thr	Met	Arg	His	Leu	Gly
				85					90					95	
Lys	Leu	Pro	His	Leu	Val	Ala	Pro	Leu	Pro	Asp	Asp	Thr	Glu	Leu	Arg
			100					105					110		
Thr	Leu	Cys	Ser	Pro	Leu	Cys	Tyr	Phe	Cys	Ser	Thr	Gln	Ser	Gln	Val
		115					120					125			
Arg	Leu	Ser	Ser	Ile	Gln	Arg	Val	Arg	Gln	Leu	Glu	Val	Pro	Ser	Pro
	130					135					140				
Ile	Ser	Arg	Met	Ser	Leu	Ala	Arg	Glu	Ala	Ala	Glu	Lys	Thr	Tyr	Leu
145					150				155						160
Gly	Arg	Gln	Ser	Lys	Thr	Glu	Thr	Lys	Lys	Ile	Pro	Ala	Leu	His	Ala
				165					170					175	
Pro	Ser	Glu	Asp	His	Lys	Val	Gly	Gln	Ala	Gly	Thr	Ser	Arg	Trp	Arg
			180					185					190		
Asp	Ser	Glu	Arg	His	Gln	Gly	Leu	Leu	Leu	Val	Pro	Val	Ser	Phe	Pro
		195					200					205			
Pro	Asn	Ala	Ala	Ala	Gln	Phe	Thr	Val	Lys	Lys	Val	Leu	Cys	Phe	Ser
	210					215					220				
His	Thr	Lys	Gln	Ala	Ala										
225					230										

<210> 182
 <211> 180
 <212> PRT
 <213> Homo sapiens

<400> 182

Thr	Ser	Pro	Ser	Ser	Ser	His	Asn	Lys	Gln	Tyr	Phe	Tyr	Asn	Thr	Lys
1				5					10					15	
Glu	Gln	Tyr	Phe	Ile	Cys	Gln	Glu	Lys	Pro	Asn	Gly	Leu	Leu	Ile	Phe
			20					25					30		
Gly	Lys	Gly	Lys	His	Ser	Leu	Gly	Val	Asn	Leu	Gly	Ser	His	Leu	Thr
		35					40					45			

Thr Ser Tyr Arg Met Ser Ser Met Lys Val Ile Glu Leu Ile Ser Cys
 50 55 60
 Lys Lys Lys Gly Lys Leu Asn Ala Glu Leu Lys Tyr Ser Lys Val Tyr
 65 70 75 80
 Lys Val Gly Met Leu Val Leu Ser Thr Leu Tyr Arg Tyr Val Gln Val
 85 90 95
 Met Phe Phe His Ile Pro Leu Thr Phe Phe Val Phe Val Tyr Ser Ala
 100 105 110
 Met Phe Gln Asp Ala Arg Met Gln Tyr Ser Phe Arg Leu Leu Asp Asn
 115 120 125
 Thr Ser Ser Asn Tyr Ser Val Ile Lys Ile Ile His Ser Arg Ser Ile
 130 135 140
 Tyr Ala Leu Phe Gly Val Glu Gly Leu Asp Ile Tyr Ala Phe Ser Val
 145 150 155 160
 Asp Asn Tyr Ile Tyr Phe Gly Tyr Ile Gly Lys Tyr Leu Thr Gln Ile
 165 170 175
 Trp Tyr Tyr Gln
 180

<210> 183
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 183

Glu Tyr Glu Tyr Phe Tyr His Cys Leu Met Leu Val Arg Lys Gly Leu
 1 5 10 15
 Ala Leu Leu Ala Glu Val Gly Gly Val Cys Val His Ala Arg Thr Gly
 20 25 30
 Thr Cys Val Leu Cys Met Cys Ile Val Cys Glu Ile Leu Gly Asn Glu
 35 40 45
 Asn Glu Arg Ser Ser Cys Ile Leu Lys Arg Thr Ser Arg Val Leu Met
 50 55 60
 Ser His Ser Phe Tyr Ile Leu Lys Arg Phe Ser Leu Glu Gln Tyr Leu
 65 70 75 80
 Lys Lys Ala Tyr Ile Leu Ser Leu Ser Leu Ser His Thr His Thr Val
 85 90 95
 Ile His Leu Tyr Thr His Ser Asn
 100

<210> 184
 <211> 173
 <212> PRT

<213> Homo sapiens

<400> 184

Tyr Met Phe Arg Ser Asn Pro Asn Pro Asn Lys His Ile Val Leu Gln
 1 5 10 15
 Cys Val Phe Ile Gln Ile Glu Tyr Ser Phe Pro Phe Leu Asn Glu Asn
 20 25 30
 Ser Ala Leu Glu Arg Val Ser Ser Gly Gly Asp Leu His Leu Gly Gly
 35 40 45
 Cys Arg Val Trp Asp Leu Phe Tyr Phe Asn Leu Tyr Arg Ala Leu Phe
 50 55 60
 Ile Phe Leu Phe Phe Leu Gly Glu Asn Gly Ser Leu Gln Asp Ile Leu
 65 70 75 80
 Lys Cys Ile Lys Phe Gly Val Asn Ser Met Trp Leu Ala Lys Ile Gln
 85 90 95
 Cys Leu Ser Gly Asn Lys Phe Leu Leu Tyr Ala Lys Leu Asn Asn Leu
 100 105 110
 Pro Gly Lys Arg Thr Ser Ser Ser Cys Leu Ser Tyr Leu Leu Pro Leu
 115 120 125
 Pro His Gln His Cys Leu Pro Ala Val Gln Arg Ala Leu Cys Pro Ala
 130 135 140
 Pro His Leu Ser Ser Cys Leu Ala Ile Leu Thr Gly Leu Leu Glu Ala
 145 150 155 160
 Gly Ser Gln Ser Asp Ile Ser Ser Trp Gln Phe Glu Thr
 165 170

<210> 185

<211> 215

<212> PRT

<213> Homo sapiens

<400> 185

Ser Leu Val Pro Lys Gly Cys Arg Leu Leu Leu Met Met Lys Arg His
 1 5 10 15
 Ser Gln Val Lys Leu Ala Gln Glu Leu Tyr Ser Glu Val Pro Glu Pro
 20 25 30
 Ala Leu Leu Ala Ala Ser Leu Lys Leu Pro Ala Met Leu Glu Tyr His
 35 40 45
 Ala Asn Ser Arg Thr Thr Asp Thr His Glu Thr Lys Arg Met Asn Val
 50 55 60
 Thr Ser Val Pro Ile Met Asn Ala Arg Ser Glu Thr Ala Met Lys Gly
 65 70 75 80

Lys Ser His Gly Thr Phe Phe Pro Met Thr Phe Val Ala Gly Glu Leu
 85 90 95
 Trp Ser Cys Gly Cys Ala Ile Lys Lys Glu Ser Ile Val Phe Phe Pro
 100 105 110
 Gln Ile Ile Phe Lys Phe Ser Glu Leu Pro Phe Asp Leu Thr Pro Phe
 115 120 125
 Ile His Ala Met Lys Ser Phe His Tyr Leu Leu Leu Val Leu Phe Gly
 130 135 140
 Val Ile Thr Cys Ile Asn Leu Val Ile Thr Arg Asp Thr Ser Lys Ser
 145 150 155 160
 Ile Trp Leu Pro Phe His Leu Leu Lys Tyr Gln Lys Thr Lys Cys Leu
 165 170 175
 Leu Pro Gly Thr Phe Val Lys Thr Ile Thr Lys Leu Arg Leu Leu Ser
 180 185 190
 Phe Phe Ile Ser Thr Ile Lys Ser Val Thr Lys Ile Arg His Tyr Ser
 195 200 205
 Asp Leu Leu Lys Thr Thr Leu
 210 215

<210> 186
 <211> 167
 <212> PRT
 <213> Homo sapiens

<400> 186

Asn Ile Phe Lys Pro Leu Ser Ser Gln Gly Tyr Gln Leu Lys Val Phe
 1 5 10 15
 Ile Gly Asn Val Tyr Tyr Met Ser Lys Phe Pro Ala Ala Leu Arg Thr
 20 25 30
 Ile Gly Gln Val Ile Cys Pro Leu Ile Leu Val Thr Arg Ile Arg Val
 35 40 45
 Leu Leu Gln Ile Trp Lys Glu Lys Leu Asp His Cys Leu Leu Tyr Tyr
 50 55 60
 Tyr His Pro Asn Val Tyr Arg Gly Asn Gly Pro Glu Trp Ser Lys Pro
 65 70 75 80
 Arg Ala Tyr Gly Glu Val Glu Leu Ser Leu Glu Val Arg Ser Ala Cys
 85 90 95
 Pro Lys Ala Cys Thr Leu Ala Thr Ile Leu Ser Tyr Cys Met Leu Tyr
 100 105 110
 Thr Thr Phe Leu Cys Leu Cys Leu Cys Ile Ser Ile Cys Leu Ser Gln
 115 120 125
 Glu Val Phe Phe Leu Leu Ile Ile Lys Cys Gly Phe Phe Val Val Val

130 135 140
 Ile Leu Leu Lys Glu Leu Ser Cys Trp Val Gln Leu Ala Leu Thr Val
 145 150 155 160
 Ala Ser Leu Leu Arg Glu Pro
 165
 <210> 187
 <211> 209
 <212> PRT
 <213> Homo sapiens
 <400> 187
 Ile Ala Ile Tyr Ile His Leu Ile Ala Asn Pro Val Gly Cys Cys Gln
 1 5 10 15
 Gln Leu Ala Leu Thr Ser Arg Ser Leu Thr Val Ile Gln His Ile Gln
 20 25 30
 Leu Asn Thr Gly Arg His Lys Ala Pro Leu Ser Pro Ala Val Lys Phe
 35 40 45
 Lys Met Arg Lys Ile Thr Gln Cys Leu Ser Pro Glu Cys Leu Ser Ile
 50 55 60
 His Lys Ser Asn Val Pro Asn Ser Ser Phe Ala Asp Cys Cys Phe Leu
 65 70 75 80
 Phe Arg Ser Asp Val His Gly Phe Ser Leu Gly Gln Asn Cys Glu Ile
 85 90 95
 Val Lys Val Thr Glu Lys Ser Leu Gln Arg Ser Ile Gly Asn Leu Leu
 100 105 110
 Met Thr Asn Cys Phe Cys Ile Val Pro Ile Leu Ser Asn Val Gln Val
 115 120 125
 Phe Thr Pro Lys Val Ser Ile Val Asn Asn Phe Tyr Phe Leu Phe Phe
 130 135 140
 Leu Arg Lys Cys Lys Ile Cys Phe Leu Asn Ile Glu Thr Tyr Lys Ile
 145 150 155 160
 Gln Lys Arg Lys Ser Ile Phe Leu Leu Pro Arg Leu Lys Ser Leu Tyr
 165 170 175
 Ser Tyr Phe Cys Val Tyr Arg Gly Tyr Phe Ser Ser Ile Tyr Ile His
 180 185 190
 Ile Lys Ser His Leu Ser Asn Gly Ile Leu Leu Phe Tyr Ile Phe Thr
 195 200 205

Thr

<210> 188
 <211> 233

<212> PRT
 <213> Homo sapiens

<400> 188

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Leu Cys Gly Arg Ser Ala Pro Ile Ile Phe Thr Leu Phe Arg Ser Gln
1          5          10          15
Leu Tyr Ile Ile Asn Pro Trp Asp Asn Ile Gly Ile Gln Phe Lys Tyr
          20          25          30
Phe Ser Ser Asp Lys Leu Asn Ala His Ile Arg Tyr Thr Phe Ala His
          35          40          45
Phe Arg Ser Tyr Phe Ile Phe Trp Leu Ser Glu Arg Ala Ser Ser Lys
          50          55          60
Asp Ser Phe Gln Cys Phe Leu Val Ala Tyr Ser Pro Asp Val Ser His
65          70          75          80
His Gln Leu Asn Ile Leu Arg Ala Ile Lys Arg Thr Val Phe Val Leu
          85          90          95
Phe Cys Phe Leu Phe Val Pro Asn Ser Cys Leu Trp Phe Cys Gln Gly
          100          105          110
Val Ile Ala Ile Phe Phe Ser His Lys Ile Ala Val Val Phe Pro Leu
          115          120          125
Tyr Glu Phe Asp Cys Arg His Ala Gly Cys Leu Val Met Val Asn Phe
          130          135          140
Ser Leu Leu Leu Lys Val Leu Cys Pro Ser Val Ala Val Ser Ser His
          145          150          155          160
Glu Phe Ser Asp Thr Cys Phe Ile Gly Gly Glu Asn Ser Lys Pro Pro
          165          170          175
Ala Arg Arg Leu Lys Asn Asn Gly Glu Asp Glu Met Thr Gln Thr Ser
          180          185          190
Val His Pro Gly Lys Gln Leu Leu Ala Gly Leu Glu Cys Gly Gly Glu
          195          200          205
Leu Leu Arg Glu Arg Ser Ile Ser Thr Pro Leu Ile Leu Ser Ser Cys
          210          215          220
Ser Pro Ala Pro Asp Gly Gln Lys Glu
          225          230

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<210> 189
 <211> 247
 <212> PRT
 <213> Homo sapiens

<400> 189

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Met Met Leu Ile Asn His Leu Tyr Asn Phe Leu Gly Glu Met Ser Asn
1          5          10          15

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Thr Leu Pro Ile Leu Met Gly Tyr Leu Leu Tyr Cys His Ile Val Ile
 20 25 30
 Leu Met Ser Gly Tyr Lys Phe Leu Ile Arg Tyr Val Val His Phe Ile
 35 40 45
 Ser Leu Cys Gly Phe Phe Leu Pro Asp Val Ile Ile His Thr Thr Met
 50 55 60
 Phe His Phe Glu Ser Ser Ile Tyr Leu Phe Phe Phe Leu Trp Leu Leu
 65 70 75 80
 Val Leu Leu Val Leu Asn Leu Lys Ser Gln Ser Arg Leu Thr Pro Lys
 85 90 95
 Ser Ser Lys Ser Val Ile Val Leu Ser Ser Tyr Ile Trp Val Gln Phe
 100 105 110
 Tyr Cys Phe Val Asn Leu Thr Arg Ile Ser Gln Tyr Ile Asn Ser Lys
 115 120 125
 Pro Met Asn Thr Cys Ser Leu Glu Lys Asn Gln Lys Ile Cys Thr Lys
 130 135 140
 Lys Ile Lys Gln Asn Thr Phe Ile Ile Leu Phe Ile Gln Lys Gln Leu
 145 150 155 160
 Leu Leu Ala Cys Trp Phe Met Leu Pro Asn Pro Ile Phe Cys Glu Cys
 165 170 175
 Ile Leu Ile Phe Val Tyr Ile Cys Ile Gly Met His Val Tyr Ile Leu
 180 185 190
 Val Gly Leu His Asn Ala His Ser Cys Val Asp Arg Phe Phe Ser Leu
 195 200 205
 Ile Tyr Cys Lys His Ile Cys Arg Ser Val Phe Trp Thr Trp Leu Phe
 210 215 220
 Thr Ser Ser Val Ser Ala Ala Glu Gln Val Leu Val Asp Asn Gln Met
 225 230 235 240
 Lys Cys Tyr Lys Cys Thr Leu
 245

<210> 190
 <211> 202
 <212> PRT
 <213> Homo sapiens

<400> 190

Val Val Phe Val Leu Ser Ile Phe Pro Ser Glu Ile Lys Ile Asn Thr
 1 5 10 15
 Cys Pro His Pro Tyr Leu Leu His Tyr Gly Pro Thr Leu Phe Ile Val
 20 25 30

Gln Lys Leu Gly Leu Pro Leu Thr Phe Leu Cys Cys Tyr Ser Asn Leu
 35 40 45
 Leu Ser Ser Lys Phe Ile Ser Met Leu Phe Pro Leu Ser Ile Leu Gln
 50 55 60
 His Leu His Ile Leu Leu Phe Ala Leu Leu Asn Thr Lys Val His Ser
 65 70 75 80
 Asp Phe Phe Leu Ile Leu Ser Val Leu Cys Phe Leu Ala Leu Val Gly
 85 90 95
 Pro Phe Leu Thr Ile Asn Ile Phe Ser Ile Ser Ser His Tyr Leu His
 100 105 110
 Leu Leu Asn Leu Thr Leu Tyr Ser Thr Ala Ile Tyr Phe Leu Glu Leu
 115 120 125
 Leu Ile Ser Arg Thr Phe Leu Ile Leu Tyr Ile Leu Asn Thr Val Tyr
 130 135 140
 Phe Ser Arg Ala Trp Lys Lys Lys Val Ser Leu Ile Gln Val Val Asn
 145 150 155 160
 Ile Gln Ser Pro Asn Lys Cys Leu Leu Ser Thr Asp Tyr Ile Pro Ser
 165 170 175
 Thr Pro Val Gly Ser Arg His Val Arg Asn Glu Ala Ile Lys Ile Ser
 180 185 190
 Thr Leu Thr Glu Ile Lys Phe Ser Gly Glu
 195 200

<210> 191
 <211> 205
 <212> PRT
 <213> Homo sapiens

<400> 191

Leu Cys Leu Lys Ile Ile Ile Ile Lys Asn Ile Tyr Leu Tyr Met Val
 1 5 10 15
 Tyr Glu Phe Asp Thr Phe Cys Phe Ile Ser Gly Leu Met Cys Tyr Arg
 20 25 30
 Lys Gly Met Thr Leu Asn Ser Leu Asn Phe Ser Leu Ile Ala Leu Asp
 35 40 45
 His Phe Gln Leu Ser His Leu Tyr Asn Ile Gly Gln Val Thr Pro His
 50 55 60
 Ala Tyr Phe Ala Ile Tyr Lys Ser Ala Asn Arg Thr Leu Ile Gly Leu
 65 70 75 80
 Leu Arg Gly Ile Ser Lys Thr Ile Glu Ser Ser Ile Trp Trp Gly Ser
 85 90 95
 Thr Asn Ile Ser Thr Leu Leu Thr Leu Phe Phe Ser Pro Cys Tyr Ala

	100		105		110										
Phe	Gln	Phe	Ile	Ser	Thr	Lys	Leu	Val	Ile	Lys	Ile	Gln	Ala	Glu	Val
	115						120					125			
Leu	Leu	Ile	Ser	Leu	Cys	Val	Leu	Pro	Gly	Ser	Tyr	His	Ser	Ala	Arg
	130					135					140				
Asp	Thr	Gln	Ala	Pro	Ser	Phe	Met	Val	Asn	Thr	Asp	Ser	Glu	Leu	Cys
145					150					155					160
Leu	Arg	Pro	Phe	Gly	Met	Leu	Gln	Gln	Asn	Thr	Ile	Asp	Arg	Val	Thr
				165					170					175	
Tyr	Lys	Pro	Gln	Lys	Cys	Val	Ser	Tyr	Arg	Ser	Gly	Gly	Trp	Glu	Val
			180					185					190		
Gln	Asp	His	Gly	Ile	Val	Arg	Phe	Ser	Val	Trp	Arg	Pro			
	195						200					205			
<210>	192														
<211>	197														
<212>	PRT														
<213>	Homo sapiens														
<400>	192														
Ala	His	Cys	Val	Phe	Ile	Ile	Met	Glu	Glu	Gln	Trp	Ser	Leu	Lys	Leu
1				5					10					15	
Gln	Ile	Ile	Pro	Ser	Pro	His	Cys	Gly	His	Leu	Phe	Leu	Ser	Asn	Leu
			20					25					30		
Ser	Leu	Glu	Gln	Leu	Ala	Arg	Met	Gln	Asn	Leu	Met	Ile	Phe	Ser	Leu
	35						40					45			
Pro	Leu	Leu	Asp	Pro	Ala	Tyr	Thr	Pro	Pro	Leu	Val	Glu	Val	Pro	Arg
	50					55					60				
Ser	Ser	Glu	Met	Thr	Lys	Arg	Gln	Gly	Val	Gly	Gly	Arg	Gly	Lys	Lys
65					70					75					80
Asn	Lys	Pro	Ser	Asp	Gln	Pro	Gln	Met	Thr	Glu	Cys	Trp	Leu	Phe	Ser
				85					90					95	
Ile	Ile	Tyr	Ser	Phe	Glu	Leu	Ser	Gln	Met	Cys	Phe	Ser	Glu	Lys	Thr
			100					105					110		
Phe	Met	Leu	Ser	Phe	Leu	Ser	Ser	Leu	Ile	Val	Asn	His	Gln	Phe	Pro
	115						120					125			
Cys	Asn	Gly	Leu	Arg	Val	Gln	Ser	Pro	Met	Arg	Ser	Arg	Ala	Ala	Arg
	130					135					140				
Phe	Ser	Arg	His	Ser	Thr	Thr	Phe	Pro	Ser	Pro	Phe	Phe	Lys	Gln	Ala
145					150					155					160
Phe	Lys	Leu	Cys	Met	Lys	Pro	Cys	Gln	Thr	Lys	Met	Lys	Val	Thr	Lys
				165					170					175	

Val Lys Ile Gln Lys Gln Phe Ile His Pro Arg Tyr Leu His Thr Ala
 180 185 190

Leu Asn Met Val Asp
 195

<210> 193
 <211> 207
 <212> PRT
 <213> Homo sapiens

<400> 193

Pro Ser Ser Trp Lys Leu Leu Phe Tyr Thr Leu Ile His Ser Gly Ile
 1 5 10 15

His Tyr Gln Val His Arg Val Val Lys Phe Arg Ile Arg Glu Asn Val
 20 25 30

Glu Lys Val Ser Ala Arg Leu Leu Pro Lys Tyr Trp Ser Asn Ile His
 35 40 45

Gln Thr His Met Val His Glu Gly Gln Thr Ser Ile Ile Cys Ser Cys
 50 55 60

Ser Pro Phe Pro Pro Val Gly Ser Ala Phe Ala Asn Ile His Met Tyr
 65 70 75 80

Phe Gln Lys Asp Pro His Gly Pro His Leu Pro Ser Thr Gly Gly Arg
 85 90 95

Glu His His Gly Pro Arg Thr Gly Asn Val Val Leu Val Gln Ser Tyr
 100 105 110

Gln Leu Leu Pro Val Pro Phe Thr Leu Cys Arg Ser Phe Leu Gly Leu
 115 120 125

Cys Ser Ile Phe Arg Gly His Trp Leu Lys Ser Ala Thr Met Arg His
 130 135 140

Leu Gly Lys Leu Pro His Leu Val Ala Pro Leu Pro Asp Asp Thr Asp
 145 150 155 160

Leu Arg Thr Leu Cys Ser Pro Leu Cys Tyr Phe Cys Ser Thr Gln Ser
 165 170 175

Gln Val Arg Leu Ser Ser Ile Gln Arg Val Arg Gln Leu Glu Val Pro
 180 185 190

Ser Pro Ile Ser Arg Met Ser Leu Ala Arg Glu Ala Ala Glu Lys
 195 200 205

<210> 194
 <211> 179
 <212> PRT
 <213> Homo sapiens

<400> 194

Ile Gln Gln Lys Arg Arg Arg His Arg Ala Thr Arg Lys Ile Gly Ile
 1 5 10 15
 Ala Ile Ala Thr Phe Leu Ile Cys Phe Ala Pro Tyr Val Met Thr Arg
 20 25 30
 Trp Val Leu Ala Val Arg Leu Leu Leu Trp Glu Gln Leu Gly Gly Leu
 35 40 45
 Gly Leu Ser Val Gly Leu Gly Phe Pro Ala Arg Tyr Leu Glu Gly Gly
 50 55 60
 His His Gln Arg Thr Leu Leu His Thr Arg Ala Gln Gly Cys Ala Ser
 65 70 75 80
 Ala Pro Gly Lys Asp Pro Gly Arg Glu Val Ala Leu Ala Pro Ile Leu
 85 90 95
 Ser Tyr Lys Gly Asp Ser Pro Cys Pro Gly Thr Gly Arg Tyr Gly Val
 100 105 110
 Cys Glu Ser Ala Pro Gly Ser Leu Asn Leu Glu Ser Phe Gln Asn Gln
 115 120 125
 Ala Thr Trp Asp Leu Arg Pro Gln Thr Pro His Leu Leu Gly Val Glu
 130 135 140
 Leu Gly Ile Trp Val Glu Ala Pro Ala Gly Ala Ser Gly Gln His Cys
 145 150 155 160
 Gln Val Ser Val Leu Phe Ala Ser Leu Phe Pro Gly Asp Leu Gly Leu
 165 170 175
 Ser Ala Cys

<210> 195
 <211> 138
 <212> PRT
 <213> Homo sapiens
 <400> 195

Arg Asn Ser Val Glu Arg Ala Ser Val Leu Asn Val Val Lys Val Tyr
 1 5 10 15
 Thr Glu His Gly Pro Phe Ile Trp Val Arg Glu Thr Thr Ser Pro Phe
 20 25 30
 Val Leu Ser His Phe Leu Leu Val Phe Leu Thr His Ile Ala Asp Val
 35 40 45
 Ile Leu Met His Lys Tyr Leu Gly Lys Val Ser Glu Ala Gly Phe Leu
 50 55 60
 Leu Val Phe Pro His Ser Leu Ser Val Val Cys Phe Tyr Ile Leu Cys
 65 70 75 80

Asp Phe Pro Ile Thr Phe Leu Cys Phe Tyr Arg Arg Ser Arg Ser Cys
 85 90 95
 Leu Thr His Leu Trp Thr Leu Ala Asn Gly Met Arg Gly His Met Pro
 100 105 110
 Phe Leu His Pro Ser Arg Ser Leu Met Trp Leu Gln Arg Ala Gln Gly
 115 120 125
 Leu Tyr Ser Gly Ser Leu Pro Ala Gln His
 130 135
 <210> 196
 <211> 196
 <212> PRT
 <213> Homo sapiens
 <400> 196
 Phe Thr Lys Pro Ile Ile Ile Ser Asn Pro Asn Arg Asp Leu Trp Leu
 1 5 10 15
 Leu Ser Ile Lys Gly Asn Lys Ala Pro Ser Pro Ile Leu Ile Ile Phe
 20 25 30
 Ser Phe Leu Phe Tyr Phe Leu Ser Phe Phe Asn Met Phe Gln Cys Gln
 35 40 45
 Asn Arg Leu Ala His Leu Cys Ser Pro Ala Ala Phe Pro Arg Arg Ala
 50 55 60
 Ala Ser Asn Ser Leu Trp Ser Gln Trp Ala Ile Ile Arg Gly Asn Thr
 65 70 75 80
 Cys Met Leu Lys Ser Ile Cys Pro Leu Thr Ile Asp Lys Gln Ala Leu
 85 90 95
 Asn Lys Lys Ser Ser Thr Gln Ile Ser Phe Leu Asn Ala Val Leu Phe
 100 105 110
 Leu Arg Phe Lys Asn Ser Ser Thr Pro Phe Ile Leu His Ile Tyr Phe
 115 120 125
 Thr Thr Ala Leu Leu Thr Ser Phe Pro Ile Leu Ala Gln Asn Phe Tyr
 130 135 140
 Glu Glu Asn Leu Arg Ile Thr Ala Leu Val Thr Cys Trp Ser Gly His
 145 150 155 160
 His Ala Phe Phe Ile Trp Gln Leu Ile Gln Ser Leu Phe His Asn Lys
 165 170 175
 Ser Asp Leu Glu Ser Gln Arg Lys Lys Lys Leu Arg Thr Cys Trp Glu
 180 185 190
 Ser Pro Val Ser
 195
 <210> 197

<211> 116
 <212> PRT
 <213> Homo sapiens

<400> 197

Phe Val Phe Lys Leu Val Thr His Thr His Thr Ser Ser Ala Arg His
 1 5 10 15
 Thr Met Lys Thr Val Ala Pro Val His Phe Ser Leu Leu Val Pro Arg
 20 25 30
 Gly Asn Tyr Phe Leu Leu Ile Val Phe Phe Trp Tyr Leu Ser Pro Tyr
 35 40 45
 Leu Ser Leu Tyr Cys His Phe Leu Ile Phe Gln Phe Ser Thr Leu Ile
 50 55 60
 Phe Gln Phe Phe His Ala Gly Arg Arg Gly Phe Asn Tyr Phe Leu Leu
 65 70 75 80
 Ser Phe Pro Val Thr Gln Tyr His Thr His Thr Pro Ser Leu Thr Pro
 85 90 95
 Thr Leu Ser Ile Phe Ser Leu Lys Ser Ile Ile Asn Ile Tyr Ile Ile
 100 105 110
 Ile Met Cys Arg
 115

<210> 198
 <211> 220
 <212> PRT
 <213> Homo sapiens

<400> 198

Ala Pro Val Lys Ile Ser Val Leu Gln Asp Lys Arg Cys Gly Gln Gly
 1 5 10 15
 Thr Gln Ser Leu Ile Glu Val Leu Met Leu Pro His Ser Trp Ala Asp
 20 25 30
 Ala Ile Leu Leu Trp Glu Leu Thr Ser Ser Pro Cys Thr Thr Ser Glu
 35 40 45
 Gly Ser Ser Pro Ser Ile Leu Tyr Cys Thr Tyr Leu Thr His Thr Leu
 50 55 60
 His Ser Ser Ala His Phe Leu Arg Val Arg Ala Phe Ser Ile His Ser
 65 70 75 80
 Ile Leu Trp Phe Leu Asn Leu Trp His Gly Phe Leu Ile Arg Asp Pro
 85 90 95
 Gln Glu Ile Thr Arg Lys Thr Asp Thr Gln Ala Pro Ser Cys Asn Pro
 100 105 110
 Arg Gln Asp Glu Leu Ser Thr Lys Ile Glu Lys Pro Leu Arg Val Pro

115 120 125
 Trp Arg Ala Val Gly Lys Ser Gly Val Arg Ser Ser Thr Ser Gln Gly
 130 135 140
 His Thr Leu Pro Leu Ser Pro Leu Ser Cys Met Ser Ser Gly Lys Leu
 145 150 155 160
 Ser Lys Leu His Gly Gln Gly Cys Leu Asp Asp Thr Cys Gly Gln Gln
 165 170 175
 His Pro His Ile Pro Arg Asp Val Glu Lys Pro Lys Lys Gly Ala Ala
 180 185 190
 Trp Arg Glu Phe Trp Gly Lys Glu Arg Gln Phe Cys Val Asp Cys Gln
 195 200 205
 Asp Gln Pro Cys Leu Leu Arg Cys Leu Glu Gln Ala
 210 215 220

 <210> 199
 <211> 200
 <212> PRT
 <213> Homo sapiens

 <400> 199

 Leu Leu Phe Leu Val Tyr Thr Ile Ser Thr Thr Gly Val Val Gly Asp
 1 5 10 15
 Lys Asp Asn Ile Phe Ser Pro Leu Ser Thr Pro Phe Leu Phe Cys Pro
 20 25 30
 Phe Cys Gly Pro Ile Ile Cys Gln His Leu Lys Ile Gly Ser His Leu
 35 40 45
 Leu Arg Ile Lys Met His Pro Tyr Pro Gly Ser Phe Ser Met Ser Arg
 50 55 60
 Ile Thr Ile Ser Lys His Ala Tyr Pro Asn Leu Thr Cys Gln Leu Gln
 65 70 75 80
 Trp Thr Leu Ile Ser Thr Ser Leu Pro Pro Ala Pro Ser Ser Val Leu
 85 90 95
 Cys Ile Ile Gln Lys Tyr Ser Ser Ser Glu Val Arg Leu Trp Tyr Thr
 100 105 110
 Ile Phe Leu Ile Ile Ile Trp Phe Ser Tyr Phe Ile Thr His Ile Ser
 115 120 125
 Phe Ile Leu Asn Leu Ser Leu Phe Cys Asn Leu Ser Leu Pro Ser Leu
 130 135 140
 Phe Ile Ser Val Met Val Trp Val Phe Leu Ser Leu Gln Asn Ser Cys
 145 150 155 160
 Asn Val Ser Ser Ala Ser Val Leu Lys Arg Trp Gly Leu Gly Gly Asp
 165 170 175

Val Thr Lys Val Pro Pro Ser Met Gly Leu Arg Thr Leu Tyr Lys Arg
 180 185 190

Leu His Thr Ala Phe Ser Cys Phe
 195 200

<210> 200
 <211> 198
 <212> PRT
 <213> Homo sapiens

<400> 200

Ser Ala Ile Val Ile Phe Leu Ser Ser Phe Leu Cys His Phe Leu Phe
 1 5 10 15

Ile Phe Gly Arg Arg Met Leu Ser Tyr Tyr Lys Pro Tyr Lys Cys Lys
 20 25 30

Leu Ile Ile Val Arg Lys Cys Tyr Ile Ser Glu Cys Leu Leu Arg Leu
 35 40 45

Ser Thr Phe Trp Cys Pro Tyr Ala Ala Pro Cys Cys Pro Val Ser Thr
 50 55 60

Leu Thr Glu Asn Cys Pro Lys Leu Pro Thr Phe Ser Thr Ser Leu Tyr
 65 70 75 80

Ser Ala Ile Lys Thr Tyr Leu Ala Arg Asp Pro Asp Cys Trp Ser Phe
 85 90 95

Pro Pro Gln Cys Gln Trp Val Asn Arg Gln Ile Lys Glu Arg Ser Ser
 100 105 110

Ser Leu Phe Ile Tyr Pro Phe Ile Ile Phe Trp Gln Leu Thr Gln Ala
 115 120 125

Phe Glu Leu Val Leu Cys Gly Gln Cys Leu Ile Ser Arg Phe Pro Ser
 130 135 140

Leu Gly Phe Gln Thr Leu Pro Val Leu Val Gln Ala Thr Leu Met Asp
 145 150 155 160

Leu Ser Leu Pro Val Ser Asn Leu Cys Thr Ser Pro Thr Leu Tyr Pro
 165 170 175

His Trp Leu Leu Ala Val Phe Pro Thr Ala Thr Cys Val Leu Pro Ser
 180 185 190

Leu Pro Val Pro Thr Leu
 195

<210> 201
 <211> 206
 <212> PRT
 <213> Homo sapiens

<400> 201

Ser Thr Arg Cys His Arg Cys Ser Val Pro Trp Pro Gly Pro Phe Trp
 1 5 10 15
 Arg His Gln Thr His Asp Lys Ala Gln Ala Val Arg Lys Glu Lys Asn
 20 25 30
 Leu Val Leu Ser Ser Phe Leu Gln Ser Glu Arg Trp Met Cys Val Thr
 35 40 45
 Leu Ser Leu Leu Glu Thr Leu Ile Lys Trp Phe Leu Leu Met Val Leu
 50 55 60
 Leu Ser Leu Arg Thr Leu Arg Ala Gly Val Gly Met Asn Leu Cys Asp
 65 70 75 80
 Ile Tyr Ala Tyr Ser Glu Ser Leu Leu Ser Ser Lys Asn Val Val Lys
 85 90 95
 Leu Glu Pro Val Phe Phe Leu Ser Ser Gln Glu Asp Leu Arg Lys Ser
 100 105 110
 Gln Ser Cys Thr Lys Phe Ser Cys Phe Ile Asn Arg Ser Pro Ala Ile
 115 120 125
 Ser Thr Phe Trp Leu Lys Leu Tyr Ile Phe Thr Tyr His Asn Asp Cys
 130 135 140
 Leu Val Asn Asp Phe Leu Ser Tyr Gln Leu Leu Glu Ser Tyr Thr Thr
 145 150 155 160
 Phe Arg Ala Thr Val Ser Phe Leu Leu Phe Leu Tyr Trp Ile Leu Val
 165 170 175
 Gln Phe Ser His Pro Lys Thr Leu Met Ala Tyr Asn Ile Ile Pro Met
 180 185 190
 His Ile Leu Ser Tyr Thr Ser Asn His Leu Ile Ile Tyr Asn
 195 200 205
 <210> 202
 <211> 167
 <212> PRT
 <213> Homo sapiens
 <400> 202

Thr Ser His Thr His Gly Ser Ser Ser Met Ile His Thr Leu Thr Gly
 1 5 10 15
 Ile Asn Leu Pro Leu His Phe Trp Pro Arg Arg Thr Phe Ser Asp Trp
 20 25 30
 Gly Ser Lys Glu Ile Thr Glu Ile Ile Lys Arg Lys Ile Ile Ser Gln
 35 40 45
 Asp Ser Phe Ala Thr Tyr Leu Ala Leu Lys Leu Arg Phe Ser Glu His
 50 55 60

Cys Ile Leu Pro Gln Thr Thr His Thr His Thr His Ile Glu Tyr Phe
 65 70 75 80
 Lys Ile Arg Asn Trp Ala Thr Tyr Asn Ser Gly Lys Arg His Leu Asn
 85 90 95
 Gly Thr Glu His His Ile Tyr Glu Ser Ser Val Gln Arg Ile Ser Glu
 100 105 110
 Asn Val His Lys Val Ser Ala Phe His Arg Leu Gly Ile Glu Ala Val
 115 120 125
 Ala Ile Thr Ile Lys Ile Gln Ala Gln Gly Lys Met Lys Leu Gly Val
 130 135 140
 Lys Gly Ser Glu Ile His Phe Arg Lys Ala Phe Lys Ala Arg Lys Met
 145 150 155 160
 Arg Ser Thr Trp Tyr Val Phe
 165

<210> 203
 <211> 181
 <212> PRT
 <213> Homo sapiens

<400> 203

Asn Lys Ser Ser Lys Gly Asn Ile Phe Arg Cys Phe Tyr Tyr Phe Leu
 1 5 10 15
 Phe Phe Ile Phe Leu Leu Trp Lys Leu Leu Val Gln Thr Ala Pro Phe
 20 25 30
 Cys Asn Pro Pro Ala Ile Ser Gln Thr Ser Val Lys Val Lys His Ser
 35 40 45
 Thr Gly Val Arg Ala Val Thr Asn Ser Leu Pro Asn Arg Leu Thr Leu
 50 55 60
 Leu Leu Tyr Ser Ala Gly Arg Lys Cys Lys Glu Pro His Thr Ala Leu
 65 70 75 80
 Glu Gln Ala Pro Asn Cys Leu Ile Met Gly Thr Cys Tyr Gln His Phe
 85 90 95
 Pro Arg Gln Gln Ala Met Pro Pro Val Pro Asp Pro Ser His Leu Ala
 100 105 110
 Tyr Asn Cys Pro Ser Leu Val Ala Met Ala Ile Gly Ile Lys Leu Gln
 115 120 125
 Val Leu Cys Trp Thr Ser Arg His Leu Leu Ser His His Ser Leu Ser
 130 135 140
 Leu Cys Leu Ser Leu Thr Leu Ala Phe Pro Ser Lys Pro Asn Lys Asn
 145 150 155 160
 Tyr Leu Asp Asn Phe Ser Ser Ser Ser Ser Lys Asn Leu Ile Phe Cys

165 170 175
 Leu Phe Val Leu Val
 180
 <210> 204
 <211> 186
 <212> PRT
 <213> Homo sapiens
 <400> 204
 Ala Arg Leu Arg His Gln Ser Asn Gly Leu Val Leu Ser Ser Pro Gly
 1 5 10 15
 Gly Leu Ile Lys Gly Gly Ser Leu Gly Asn Val Ser Val Ile Gly Pro
 20 25 30
 Ser Val Asn Thr Tyr Leu Ala Asn Ala Ser Ser Lys Trp Pro Gly Ala
 35 40 45
 Ala Phe Arg Thr Leu Arg Arg Phe His Asn Val Val Leu Arg Met Val
 50 55 60
 Phe Leu His Trp Ile Phe Phe Leu Pro Phe Gln Leu Tyr Lys Leu Phe
 65 70 75 80
 Tyr Glu Lys Gly Gly Asn Ala Lys Gly Ile Gly Val Gly Gly Asn Val
 85 90 95
 Lys Ile Leu Gln Asp Pro Ala Ser Ile Phe Gly Ala Gln Arg Glu Pro
 100 105 110
 Gly Ser Thr Phe Leu Asn Thr Gly Gly Thr Gly Gly Met Glu Ala Trp
 115 120 125
 Ser Gly Gly Ala Cys Gly Gln Thr Pro Ala Ala Leu Ser Thr Tyr His
 130 135 140
 Ile Met Ala Trp Gln Thr Ser Ser Pro Ser Lys His Arg Leu Leu Ala
 145 150 155 160
 Asp Ser Pro Gln Lys Asp Met Pro Gly Val Asp Ala Trp Asn Ser Leu
 165 170 175
 Leu Ile Tyr Trp Asn Pro Lys Ile Lys Gln
 180 185
 <210> 205
 <211> 249
 <212> PRT
 <213> Homo sapiens
 <400> 205
 Phe Lys Ile Val Ser Leu Phe Leu Tyr Lys Pro Ser Arg Leu Gln Lys
 1 5 10 15
 Phe Lys Asn Thr His Glu Val Gly Asn Cys Ile His Phe Leu Ser Thr

20					25					30					
Gln	His	Ser	Met	Thr	Asp	Leu	Val	Val	Leu	Asn	Asn	Thr	Asn	Leu	Leu
		35					40					45			
Ser	Gln	Ser	Ser	Leu	Asp	Gln	Lys	Phe	Asn	Ile	Gly	Ser	Ala	Lys	Ile
	50					55					60				
Lys	Gly	Leu	Ala	Cys	Ala	Ser	Tyr	Arg	Phe	Gly	Arg	Ile	His	Phe	Gln
65				70						75					80
Val	His	Ala	Tyr	Cys	Trp	Leu	Asn	Ser	Ile	Pro	Cys	Ser	Tyr	Arg	Ile
				85					90					95	
Ile	Pro	Val	Phe	Leu	Leu	Ala	Lys	Gly	Leu	Asn	His	Phe	Leu	Pro	Leu
			100					105					110		
Glu	Ile	Val	Cys	Phe	Pro	Tyr	Leu	Met	Ala	Leu	Leu	Ser	Ser	Lys	Ser
		115					120					125			
Ala	Ile	Met	Ile	Gln	Val	Leu	Pro	Phe	Ile	Ser	Ser	Val	Ile	Tyr	Ser
		130				135						140			
Asp	Met	Ser	Ser	Leu	Pro	Ser	Leu	His	Leu	Thr	Leu	Leu	Pro	Ser	Ser
145				150						155					160
Ile	Cys	Lys	Gly	Pro	His	Thr	Asn	Pro	Glu	Ser	Leu	Tyr	Phe	Lys	Ile
				165					170					175	
Asn	Leu	Leu	Glu	Pro	Phe	His	Leu	Gln	Asn	Cys	Val	Ser	Ile	Tyr	His
			180					185					190		
Asn	Ile	Ser	Thr	Gly	Ile	Trp	His	Lys	Arg	Val	Thr	Ile	Met	Ala	Cys
		195					200					205			
Val	Ser	His	Lys	Ile	Thr	Ala	Pro	Asn	Arg	Ile	Thr	Ser	Lys	Leu	Ala
		210				215					220				
Tyr	Phe	Tyr	Ile	Asn	Pro	Pro	Lys	Asp	Asn	Cys	Arg	Ser	Ser	Ser	Lys
225				230						235					240
Ile	Pro	Asp	Met	Lys	Leu	Ala	Ile	Ala							
				245											

<210> 206
 <211> 240
 <212> PRT
 <213> Homo sapiens

<400> 206

His	His	Ser	His	Leu	His	Gln	Pro	Thr	Arg	Ala	Pro	Val	Gly	Glu	Gly
1				5					10					15	
Lys	Leu	Ser	Lys	Cys	Leu	Trp	Gly	Ser	Ser	Val	Gly	Ser	Leu	Arg	Arg
			20					25					30		
Gln	Gly	Leu	Leu	Gly	Arg	Ala	Phe	Arg	His	Gly	Arg	Gly	Arg	Arg	Glu
		35					40					45			

Gly Thr Gln Asn Gln Glu Gly Val Gly Gly Ser Asp Leu Met Ser Gln
 50 55 60
 Lys Thr Phe Trp Lys Ser Gly Leu Pro Ala Leu Glu Gly Met Thr Leu
 65 70 75 80
 Ser Arg Val Pro Cys Lys Asp Ser Pro Glu Arg Leu Pro Asn Ser Ser
 85 90 95
 Arg Asp Pro Gly Ala Asp Cys His Pro Thr Arg Val Arg Pro Gly Arg
 100 105 110
 Cys Val Leu Pro Arg Ala Leu Gln Thr Phe Gly Ala Cys Lys Gly Asn
 115 120 125
 Gly Glu Ser Leu Trp Gln Arg Gln Arg Leu Gln Ser Glu Cys Lys Met
 130 135 140
 Ala Lys Ile Met Leu Leu Val Ile Leu Leu Phe Val Leu Ser Trp Ala
 145 150 155 160
 Pro Tyr Ser Ala Val Ala Leu Val Ala Phe Ala Gly Ala Val Ala Lys
 165 170 175
 Gly Leu Gly Lys Arg Leu Lys Val Trp Gly Gln Glu Gln Glu Ala Trp
 180 185 190
 Pro Ala Ser Pro Ser Gln Pro Asn Pro Gly Gln Pro Ser Ser His Pro
 195 200 205
 Arg Thr Ser Phe Thr Ala Tyr Ser Leu Pro Trp Val Arg Cys Pro Ala
 210 215 220
 Pro Gly Trp Val Gly Gly His Leu Val Pro Gly Ser Thr Arg Ala His
 225 230 235 240

<210> 207
 <211> 170
 <212> PRT
 <213> Homo sapiens
 <400> 207

His Arg Ile Phe Lys Ala Phe Ser Gln Val Thr Phe Asp Cys Ile Asn
 1 5 10 15
 Ser Ile Phe Phe Leu Leu Leu Ile Leu Cys Phe Cys His Asn Leu Leu
 20 25 30
 Leu Leu Tyr Cys Ile Cys Leu Asn Lys Leu Leu Asn Leu Leu Phe
 35 40 45
 Leu Ile Val Leu Phe Phe Asn Leu His Thr Lys Asp Ile Ser Asn His
 50 55 60
 Ile Thr Ile Thr Ile Leu Lys Cys Ser Glu Phe Asp Tyr Ala Phe Thr
 65 70 75 80

Phe Ala Tyr Lys Cys Ile Cys Leu Asn Lys Leu Leu Asn Leu Leu Leu
 85 90 95
 Phe Leu Ile Val Leu Phe Phe Asn Leu Tyr Thr Leu Tyr Val Tyr Val
 100 105 110
 Leu Val Ile Ser Ile Leu Phe Phe Gln Val Phe Ser Asn Ile Lys Asn
 115 120 125
 Ser Ile Ser Ile Ser Cys Lys Thr Gly Met Val Leu Leu Asn Ser Leu
 130 135 140
 Ser Phe Phe Leu Gly Lys Pro Leu Ser Leu Phe Leu Phe Leu Lys Asp
 145 150 155 160
 Ser Phe Ala Met Tyr Ser Ile Leu Phe Trp
 165 170

<210> 208
 <211> 174
 <212> PRT
 <213> Homo sapiens

<400> 208

Thr Val Ser Val Thr Gln Tyr Ile His Ala Trp Ile Phe Ile Pro Val
 1 5 10 15
 Phe Leu Phe Ser Ile Cys Tyr Thr Leu His Ile Leu Gly His Cys Ser
 20 25 30
 Ser Arg Pro Asn Asp Arg Gly Gln Met Asn His Tyr Val Leu Leu Ser
 35 40 45
 Met Leu Lys Gly Lys Lys Ser Ile Asn Ser Met Phe Ile Tyr Cys Phe
 50 55 60
 Tyr Leu Pro Met Ile Phe Phe Ile Leu Gly Gln Lys Phe Asn Leu Ser
 65 70 75 80
 Tyr Ile Phe Gln Thr Phe Lys Met Phe Ala Val Ile Phe Ser Thr Ser
 85 90 95
 Trp Gln Gln Ile Cys Phe Arg Ile Cys Ser Leu Tyr Tyr Ser Cys Leu
 100 105 110
 Cys Val Cys His Thr Glu Ser Thr Phe Gln Lys Leu Leu Lys Glu Ile
 115 120 125
 Thr Glu Met Lys Val Met Asn Ala Ile Leu Leu Glu Ile Asn Phe Leu
 130 135 140
 Ser Lys Asp Asn Arg Gly Ser Val Leu Ser Glu Glu Pro Gly Ala Ile
 145 150 155 160
 Leu Lys Ser Leu Ile Ser Leu Pro Pro Phe His Gly Met Tyr
 165 170

<210> 209

<211> 165
 <212> PRT
 <213> Homo sapiens

<400> 209

Gly Pro Arg Asp Leu Ser Thr Ser Leu Gly His Met Gly Trp Leu Arg
 1 5 10 15
 Ala Leu Gln Arg Glu Thr Leu Pro Gln Trp Gly Pro Arg Pro Val Lys
 20 25 30
 Arg Glu Ile Lys Thr Lys Ser Ala Asp Phe Gln Ser Ser Ser Phe Asn
 35 40 45
 Ile Ser Lys Ser His Lys Asn Tyr Ser Arg Glu Leu Val Glu Arg Leu
 50 55 60
 Glu Leu Gly Arg Lys Ala Gly Tyr Ile Phe Leu Phe Ser Asn Phe Ser
 65 70 75 80
 Ser Tyr Thr Trp His Leu Ser Ser Leu Leu Leu Leu Phe Arg Leu
 85 90 95
 Leu Trp Pro Gln Glu Gly Gly Met Leu Asp Gly Trp Arg Ala Arg Glu
 100 105 110
 Gly Leu Arg Cys Asn Ser Tyr Phe His Val Cys Asp Asn Ala Val Ala
 115 120 125
 Met Leu Phe Ser Glu Ala Ser Ser Cys Thr Gln Gly Val Leu Leu Met
 130 135 140
 Gln Arg Gly Arg Phe Gln Cys Leu Ala Val Val Tyr Leu Pro Cys Arg
 145 150 155 160
 Cys Ser Gly Gln Gln
 165

<210> 210
 <211> 167
 <212> PRT
 <213> Homo sapiens

<400> 210

Thr Ser His Thr His Gly Ser Ser Ser Met Ile His Thr Leu Thr Gly
 1 5 10 15
 Ile Asn Leu Pro Leu His Phe Trp Pro Arg Arg Thr Phe Ser Asp Trp
 20 25 30
 Gly Ser Lys Glu Ile Thr Glu Ile Ile Lys Arg Lys Ile Ile Ser Gln
 35 40 45
 Asp Ser Phe Ala Thr Tyr Leu Ala Leu Lys Leu Arg Phe Ser Glu His
 50 55 60
 Cys Ile Leu Pro Gln Thr Thr His Thr His Thr His Ile Glu Tyr Phe

65					70					75					80				
Lys	Ile	Arg	Asn	Trp	Ala	Thr	Tyr	Asn	Ser	Gly	Lys	Arg	His	Leu	Asn				
				85					90					95					
Gly	Thr	Glu	His	His	Ile	Tyr	Glu	Ser	Ser	Val	Gln	Arg	Ile	Ser	Glu				
			100					105					110						
Asn	Val	His	Lys	Val	Ser	Ala	Phe	His	Arg	Leu	Gly	Ile	Glu	Ala	Val				
		115					120					125							
Ala	Ile	Thr	Ile	Lys	Ile	Gln	Ala	Gln	Gly	Lys	Met	Lys	Leu	Gly	Val				
	130					135					140								
Lys	Gly	Ser	Glu	Ile	His	Phe	Arg	Lys	Ala	Phe	Lys	Ala	Arg	Lys	Met				
145					150					155					160				
Arg	Ser	Thr	Trp	Tyr	Val	Phe													
				165															

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<210> 211
<211> 202
<212> PRT
<213> Homo sapiens
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<400> 211

Ser 1	Thr	Gly	Phe 5	Phe	Ser	Met	Pro	Leu	Phe 10	His	Phe	Gln	Pro	Ile 15	Ser
Ser	Ile	His	Cys 20	Leu	Ala	Ser	Tyr	Pro 25	Asn	Cys	Thr	Lys	Pro 30	Ala	Gln
Ser	Leu	Trp 35	Glu	Asp	Phe	Glu	Asn 40	Ala	Phe	Ser	Cys	Val 45	Ala	Ser	Leu
Val 50	Ser	Ile	Lys	Leu	Ser	Thr 55	Thr	Met	Pro	Trp	Cys 60	Gln	Cys	Ile	Leu
Ser 65	Val	Gln	Cys	Ala	Glu 70	Arg	Thr	His	Trp	Gln 75	Leu	His	Tyr	Gln	Leu 80
Ser	Leu	Phe	Cys	Pro 85	Ser	Asn	Arg	Lys	Tyr 90	Phe	Asn	Pro	Gly	Lys 95	Ser
Ile	Arg	Val	Ser 100	His	Ser	Phe	Ala	Glu 105	Leu	Leu	Val	Ala	Trp 110	Pro	Glu
Thr	Leu	Ser 115	Ala	Ala	Pro	Val	Thr 120	Gln	Trp	Pro	Phe	Ser 125	Phe	Ser	Glu
Thr 130	Phe	Phe	Leu	Asn	Leu	Cys 135	Val	Pro	Cys	Leu	Asn 140	Leu	Tyr	Trp	Leu
Ile 145	Ser	Arg	Pro	Val	Lys 150	Leu	Ser	Ile	Leu	Thr 155	Pro	Ser	Leu	Pro	Ser 160
Arg	Asn	Ala	Ile	Cys 165	Leu	Ser	Phe	Leu	Ser 170	Tyr	Leu	Leu	Leu	Pro 175	Gly

Phe Trp Glu Val Tyr Ala Leu Gly Asp Lys Tyr Pro Ser Glu Lys Lys
 180 185 190

Asn Thr Asn Phe Phe Lys Phe Phe Thr Pro
 195 200

<210> 212
 <211> 155
 <212> PRT
 <213> Homo sapiens

<400> 212

Met His Leu Pro Tyr Leu Leu Leu Ser Phe Pro Tyr Pro Gln Asn Ile
 1 5 10 15

Val Ser Leu Trp Ile Ala His Ser Trp Pro Asp Lys Gln Leu Ser Asn
 20 25 30

Thr Ile Tyr Asn Leu Ser Val Asn Ile Phe Leu Ser Pro Pro Leu Leu
 35 40 45

His Cys Lys Phe Ser Ser Met Gly Ser Cys Leu Val Tyr Ser Arg His
 50 55 60

Ser Gly Thr Asn His Asn Leu Trp Ser Glu Asn Cys Ile Leu Tyr His
 65 70 75 80

Gly Ser Thr Thr Lys Val Thr Leu Arg Thr Cys Pro Asp Gly Asn Phe
 85 90 95

Phe His Phe Gln Asn Val Ser Asp Pro Leu Ser Phe Gln Cys Leu Gln
 100 105 110

Val Ile Trp Val Tyr Thr Phe Glu Asn Lys Asn Phe Leu Gly Ile Ser
 115 120 125

Ile Leu Ile Phe Asn Ile Gln Ile Lys Cys Val Met Cys Phe Ile Leu
 130 135 140

Leu Lys Ser Phe Pro Ile Ser Tyr Phe Asn Lys
 145 150 155

<210> 213
 <211> 190
 <212> PRT
 <213> Homo sapiens

<400> 213

Lys Ala Thr Gln Lys His Ser Ser Thr Lys Trp Ser Ala Ser Asn Cys
 1 5 10 15

Ser Val Ser Gly Phe Tyr Asp Ala Glu Phe Gly Ser Ile Glu Ser Thr
 20 25 30

Val Ser Met Asp Cys Pro Asn Pro Ser Ser Lys Ile Val Asp Ile His
 35 40 45

Gly Leu Ser Gln Val His Cys Phe Ile Tyr Leu Phe Ile Tyr Leu Ile
 50 55 60
 Leu Asp Ser Arg Ala His Val Gln Val Cys Tyr Met Asp Ile Leu Cys
 65 70 75 80
 Asp Ala Asp Val Trp Val Ser Ile Glu Pro Val Thr Leu Ile Val Asn
 85 90 95
 Leu Val Pro Asn Trp Asn Trp Met Gln Gly Leu Ser Arg Ser Arg Thr
 100 105 110
 Gly Ser Ser Pro Pro Asp Leu Leu Gly Leu Asp Leu Leu Lys Asp Gln
 115 120 125
 Lys Gly Arg Arg Tyr Glu Leu Asp Ala Cys Thr Gln Tyr Ser His Ser
 130 135 140
 Val Phe Glu Ala Tyr Leu Asp Gln Gly Cys Asp Leu Leu Lys Gly Ile
 145 150 155 160
 Thr Lys Ala Thr Thr Leu Ser Ala Asn Lys Val Val Ser Asn Leu Ile
 165 170 175
 Ile Ile His Phe Leu Leu Leu His Phe Lys Ile Asp Thr Cys
 180 185 190

<210> 214
 <211> 76
 <212> PRT
 <213> Homo sapiens

<400> 214

Thr Pro Ile Asp Ser Asp Leu Glu Val Arg Ala Lys Ala Tyr Pro Glu
 1 5 10 15
 Pro Pro Ser Leu Thr Pro Leu Phe Gln Phe Ser Phe Ser Gln Ile Ser
 20 25 30
 Pro Leu Gly Cys Ala Lys Pro Ser Trp Ile Gln Lys Phe His Phe Gln
 35 40 45
 Tyr Gly Tyr Cys Phe Gln Ser Ile Thr Pro Lys Asn Ser Arg Arg Lys
 50 55 60
 Lys Gly Ser Val Val Ile Phe Lys Ser Gln Asn His
 65 70 75

<210> 215
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 215

Arg Asp Thr Ala Ile His Gly Val Phe Met Asn Leu Ser Leu Met Asn
 1 5 10 15

Ala Tyr Asp Met Phe Ile His Leu Phe Val Glu Ser Phe Asp Arg Phe
 20 25 30
 Ala Gln Asn Arg Glu Val Val Val Val Ala Val Trp Ile Trp Glu Gly
 35 40 45
 Glu Val Ser Phe Gly Gln Val Ile Ser Ala Tyr Gln Thr Ile Lys Gly
 50 55 60
 Ser Ala Phe Thr Glu Cys Trp Leu Gly Cys Asp Ser Cys Phe Ala Leu
 65 70 75 80
 His Ser Leu Lys Arg Leu Tyr Val Ser Pro Leu Cys Pro Phe Pro Ser
 85 90 95
 His Leu Lys Ile Asn Arg Arg Glu Asn Asn Val Ile Arg Gly Ser Asn
 100 105 110
 Cys Ile Tyr Cys Leu Cys Arg Val Val Val Asp Thr Gly Met Phe Pro
 115 120 125
 Tyr Ser Leu Cys Leu Ala His Leu Lys Cys Val Ile Ile Asn Asp Ile
 130 135 140
 Leu Lys Asn Thr Glu Gln Leu Val Leu Gly Ile Cys Pro Thr Ser Tyr
 145 150 155 160
 Asp Ser Ser Ala Ile Leu Ile Ser Leu
 165

<210> 216
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 216

Lys Arg Ser Leu Asp Tyr Tyr Tyr Ile Ile Gln Met Cys Met Cys Val
 1 5 10 15
 Ser Ala Met Tyr Leu Leu Leu Leu Ser Arg Val Tyr Asn Met Lys Leu
 20 25 30
 Leu Thr Ile Ile Gln Glu Ile Arg Cys Met Asn Leu Val Gly Asn Val
 35 40 45
 Ser Tyr Tyr Asn Phe Tyr Asn Ile Ser Phe Lys His Phe Asp Ala Phe
 50 55 60
 Leu Leu Phe Lys Arg Leu Arg Asn Glu Asn Ile Lys Ile Asn Ile Phe
 65 70 75 80
 Leu Lys Cys Cys Ala Phe Tyr Leu Met Leu Leu Leu Ile Arg Ser Cys
 85 90 95
 Val Ile Leu Phe Leu Ile Glu Phe Asp Ile Arg Asn Lys Gly Arg
 100 105 110

<210> 217
 <211> 180
 <212> PRT
 <213> Homo sapiens

<400> 217

Leu Thr Tyr Tyr Leu Gln Arg Asn Leu Ser Lys Pro Phe Leu Leu Tyr
 1 5 10 15
 Leu Ala Ser Arg Ile Pro Leu Pro Thr Phe Asn His Pro Gly Thr Leu
 20 25 30
 Tyr Thr Ser Ile Leu Thr Leu Phe Ile Leu Pro Phe Val Ile Ile Ala
 35 40 45
 Ser Cys Phe Arg Ala Pro Leu Asn Thr Lys Val Phe Glu Ser Arg Asn
 50 55 60
 Ser Lys His Phe Lys Phe Leu Ser Leu His Met Gln Leu Leu Leu His
 65 70 75 80
 Ser Gln Tyr Thr Val Asn Ala Asp Ile Glu Arg Ile Ser Leu Leu Glu
 85 90 95
 Cys Asn Ser Leu Arg Val Ser Asn Ser Ser Ser Leu Lys Thr Asn Pro
 100 105 110
 Thr Lys Leu Thr Ile Val Ser Thr Thr Lys Ser Leu Gln Val Ile Asn
 115 120 125
 Leu Thr Ile Glu Val Phe Ile Phe Leu Leu Gly Lys Pro Gly Gln Pro
 130 135 140
 Gln Gly Pro Thr Tyr Pro Gly Val Thr Leu Lys Val Met Arg Phe Pro
 145 150 155 160
 Ser Lys Met Thr Lys Leu Ser Gly Phe Ser Gly Met His Thr His Cys
 165 170 175
 Val Thr Ile Asn
 180

<210> 218
 <211> 219
 <212> PRT
 <213> Homo sapiens

<400> 218

His Ile Glu Cys Ala Ile Pro Ser Asn Phe Cys Phe Asn Asn Cys Lys
 1 5 10 15
 His Ile Phe Cys Lys Tyr Asn Phe Ala Ser Arg Ala Ile Cys Phe Thr
 20 25 30
 Ser Leu Ile Ile Phe Cys Tyr Thr Asp Leu Gln Val Ile Leu His Lys
 35 40 45

Val Gly Leu Asn Leu Lys Cys Leu Leu Phe Ile Lys Cys Cys Pro Leu
 50 55 60
 Leu Met Phe Ile Ile Tyr Ile Phe Leu Val Leu Asn Leu Asp Trp Lys
 65 70 75 80
 Asn Met Leu Cys Lys Ile His Gly Asn Ile Phe Arg Thr Asn Phe Tyr
 85 90 95
 Leu Tyr Arg Trp Leu Ile Ser Cys Ser Glu Asn Lys Thr Met Asn Lys
 100 105 110
 Gln Cys Phe Ile Tyr Ser Ser Phe Asn Val Ser Gln Val Asn Thr Tyr
 115 120 125
 Leu Leu Tyr Phe Leu Ser Ala Val Thr Pro Pro Phe Leu Leu Phe Ser
 130 135 140
 Ser Val Trp Leu Cys Pro Arg Ala Asn Ser Val Pro Ser Ile Arg Leu
 145 150 155 160
 Ser Val Tyr Ser Thr His Gly Leu Glu Leu Lys Trp Leu Gly Asn Cys
 165 170 175
 Asn Thr Val Asp Trp Ser His Phe Lys Leu Ala Gln Thr Trp Ser Tyr
 180 185 190
 Cys Ile Pro Lys Met Asn Ser Leu Ile Arg Thr Thr Phe Pro Thr Phe
 195 200 205
 Ser Cys Leu Leu Lys Pro Pro Ser Pro Leu Pro
 210 215

<210> 219
 <211> 211
 <212> PRT
 <213> Homo sapiens

<400> 219

Phe Val Leu Cys Ile Phe Ser Leu Gly Ser Val Ser Val Ser Ser Pro
 1 5 10 15
 Cys Asn Lys Leu Ser Gln Val Ser Cys Phe Gln Val Phe Val Phe Leu
 20 25 30
 Val Asn Tyr Gln Thr Arg Gly Phe Gly Glu Leu Leu Glu Phe Ala Ile
 35 40 45
 Gly Val Arg Ser Glu Asp Asn Leu Val Cys Thr Val Phe Ser Leu Thr
 50 55 60
 Leu Trp Gly Leu Gly Met Val Gly Gly Arg Glu Ser Arg Cys Val Lys
 65 70 75 80
 Leu Thr Val Ile Phe Leu Pro Lys Lys Lys Leu Ser Pro Gln Gly Tyr
 85 90 95
 Lys Glu Ala Thr Thr Val Phe Pro Thr Leu His Thr Lys Phe Gln Gln

100 105 110
 Trp Asn Phe Met Ile Tyr Leu Gly Asn Tyr Ile Trp Arg Asn Val Leu
 115 120 125
 Lys Leu Gln Ile Leu Thr Lys Asp Phe Leu Lys Tyr Ser Asn Lys Val
 130 135 140
 Ile Asp Cys Asn Gln Asn Ser His Leu Pro Lys Arg Arg Trp Tyr Ser
 145 150 155 160
 Ile Leu Lys Val Ile Ile Leu Leu Gly Lys Gln Cys Leu Pro Val Leu
 165 170 175
 Ile Ile Ile Leu Glu Thr Thr Val Phe Ile Asn Val Ser Glu Ile Tyr
 180 185 190
 Asn Leu Asn Glu Ile Leu Met Pro Lys Met Asn Thr Gly His Ile Phe
 195 200 205
 Lys His Tyr
 210
 <210> 220
 <211> 177
 <212> PRT
 <213> Homo sapiens
 <400> 220
 Ile Leu Lys Ile Ile Ser Leu Asp Thr Val Leu Leu Cys Val Ser Tyr
 1 5 10 15
 Arg Ser Thr Ile Val Phe Ser Leu Phe Pro Ile Val Ile Arg Asp Arg
 20 25 30
 Ser Ser Ser Leu Phe Phe Leu Leu Gln Ser Phe Ile Trp Asn Leu Phe
 35 40 45
 Trp Cys Leu Ile His Lys Tyr Leu Ile Cys Leu Pro Asn Arg Val Lys
 50 55 60
 Met Ile Pro Val Met Leu Leu Ile Cys Val Leu Arg Arg Lys Lys Ser
 65 70 75 80
 Gly Ser Thr Met Ala Leu Gly Ile Leu His Lys Pro Met Lys Ala Val
 85 90 95
 Thr Phe Val Asn Val Phe Leu Val Glu Thr Ser Val Glu Asn His Cys
 100 105 110
 Cys Ile Ile Val Leu Ser Ser Arg Thr Tyr Ser Gly Asp Gly Asn Thr
 115 120 125
 Leu Leu Tyr Phe Pro Ile Trp Tyr Ser Leu Thr Thr Cys Gly Tyr Gln
 130 135 140
 Val Leu Glu Met Trp Leu Gly Asp Gly Thr Glu Ile Phe Ser Leu Ile
 145 150 155 160

Leu Ser Val Ile Tyr Thr Thr Ala Tyr Phe Ile Glu Ser Thr Phe Ser
165 170 175

Ile

